

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 1820  | 9845030  | gi 9845030 dbj BAB11914.1  (AB034726) 5-oxoprolinase precursor [ <i>Alcaligenes faecalis</i> ]  | 5.8     |
| 1821  | 6599044  | gi 6599044 emb CAB63584.1  (AJ251826) BMP2/4 protein [ <i>Asterias rubens</i> ]   | 6.7     |
| 1822  | 7715984  | gi 7715984 gb AAF68235.1 AF206244_1 (AF206244) seroreactive antigen BMN1-2 [ <i>Babesia microti</i> ]   | 0.067   |
| 1823  | 7293329  | gi 7293329 gb AAF48709.1  (AE003504) CG5162 gene product [ <i>Drosophila melanogaster</i> ]   | 2.8     |
| 1824  | 2136095  | gi 2136095 pir  I58381 receptor tyrosine kinase isoform FLT4 long - human (fragment) gb AAB28539.1  (S66407) receptor tyrosine kinase isoform FLT4 long, FLT41 {C-terminal} [human, Peptide Partial, 71 aa] [ <i>Homo sapiens</i> ]   | 0.0007  |
| 1826  | 7522093  | gi 7522093 pir  T30809 plasminogen related growth factor receptor 3 - <i>Fugu rubripes</i> emb CAA09086.1  (AJ010317) plasminogen related growth factor receptor 3 [ <i>Takifugu rubripes</i> ]   | 4.7     |
| 1832  | 13622999 | gi 13622999 gb AAK34670.1  (AE006621) hypothetical protein [ <i>Streptococcus pyogenes</i> M1 GAS]  | 3.7     |
| 1834  | 6319504  | gi 6319504 ref NP_009586.1  Ybr030wp [ <i>Saccharomyces cerevisiae</i> ] sp P38222 YBO0_YEAST HYPOTHETICAL 62.6 KD PROTEIN IN CDS1-RPL4A INTERGENIC REGION pir  S45886 hypothetical protein YBR030w - yeast ( <i>Saccharomyces cerevisiae</i> ) emb CAA53686.1  (X76078) YBR0314 [ <i>Saccharomyces cerevisiae</i> ] emb CAA84972.1  (Z35899) ORF YBR030w [ <i>Saccharomyces cerevisiae</i> ] prf  2206497K ORF YBR0314 [ <i>Saccharomyces cerevisiae</i> ] | 0.65    |
| 1835  | 7290986  | gi 7290986 gb AAF46425.1  (AE003445) CG3898 gene product [ <i>Drosophila melanogaster</i> ]   | 3.1     |
| 1840  | 14725330 | gi 14725330 ref XP_002254.2  mitochondrial translational initiation factor 2 precursor [ <i>Homo sapiens</i> ]  | 4.2     |

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| 1842  | 7509362  | gi 7509362 pir T31492 hypothetical protein Y116A8C.20 - <i>Caenorhabditis elegans</i><br>emb CAB55126.1  (AL117204) predicted using Genefinder~contains similarity to Pfam domain: PF00642 (Zinc finger C-x8-C-x5-C-x3-H type (and similar).), Score=71.0, E-value=3.1e-19, N=2~cDNA EST yk247a8.5 comes from this gene [ <i>Caenorhabditis elegans</i> ] | 8.4     |
| 1846  | 6093793  | gi 6093793 sp Q64181 PROP_CAVPO PROPERDIN PRECURSOR gb AAB35918.1  (S81116) properdin [guinea pigs, spleen, Peptide, 470 aa] [Cavia]  | 4.1     |
| 1848  | 7300538  | gi 7300538 gb AAF55691.1  (AE003727) CG7411 gene product [ <i>Drosophila melanogaster</i> ]   | 2.7     |
| 1849  | 1730077  | gi 1730077 sp P18160 KYK1_DICDI NON-RECEPTOR TYROSINE KINASE SPORE LYSIS A (TYROSINE-PROTEIN KINASE 1) pir T18276 non-receptor tyrosine kinase - slime mold ( <i>Dictyostelium discoideum</i> ) gb AAB41125.1  (U32174) non-receptor tyrosine kinase [ <i>Dictyostelium discoideum</i> ]  | 8.4     |
| 1851  | 5326919  | gi 5326919 emb CAB46239.1  (AJ133488) SCO-spondin [ <i>Bos taurus</i> ]   | 2.7     |
| 1853  | 13811938 | gi 13811938 emb CAC03433.2  (AL118505) dJ1056H1.2.1 (novel protein similar to mitogen inducible protein MIG-2 (isoform 1)) [ <i>Homo sapiens</i> ]  | 2E-21   |
| 1859  | 8954377  | gi 8954377 ref NP_059365.1  haem lyase [ <i>Cyanidioschyzon merolae</i> ] pir A58932 cytochrome C-type biogenesis protein CCMF - <i>Cyanidioschyzon merolae</i> mitochondrion dbj BAA36527.1  (D89861) cytochrome C-type biogenesis protein CCMF [ <i>Cyanidioschyzon merolae</i> ]   | 2.3     |
| 1860  | 13376638 | gi 13376638 ref NP_079359.1  hypothetical protein FLJ21128 [ <i>Homo sapiens</i> ] dbj BAB15001.1  (AK024781) unnamed protein product [ <i>Homo sapiens</i> ]   | 2E-47   |
| 1862  | 14602664 | gi 14602664 gb AAH09855.1 AAH09855 (BC009855) Similar to nucleolin [ <i>Homo sapiens</i> ]  | 4E-45   |

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|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 1864  | 7512078  | gi 7512078 pir T30879 dynein heavy chain isotype 5A - sea urchin (Tripneustes gratilla) (fragment)<br>gb AAA63591.1  (U03977) dynein heavy chain isotype 5A [Tripneustes gratilla]   | 1.7     |
| 1865  | 7688347  | gi 7688347 emb CAB89836.1  (AJ242516) AmpE protein [Salmonella typhimurium]  | 2.8     |
| 1867  | 4758568  | gi 4758568 ref NP_004497.1  heat shock transcription factor 2 [Homo sapiens] ref XP_004466.2  heat shock transcription factor 2 [Homo sapiens] ref XP_051573.1  heat shock transcription factor 2 [Homo sapiens]<br>sp Q03933 HSF2_HUMAN HEAT SHOCK FACTOR PROTEIN 2 (HSF 2) (HEAT SHOCK TRANSCRIPTION FACTOR 2) (HSTF 2) pir A41138 heat shock transcription factor HSF2 - human<br>gb AAA36017.1  (M65217) HSF2 [Homo sapiens] | 0.33    |
| 1869  | 13358509 | gi 13358509 ref NP_078688.1  orf107 [lymphocystis disease virus 1]   | 8.1     |
| 1870  | 6580323  | gi 6580323 emb CAB63392.1  (AL132864) cDNA EST EMBL:T00048 comes from this gene~cDNA EST EMBL:T00047 comes from this gene~cDNA EST yk390e6.3 comes from this gene~cDNA EST yk512a3.3 comes from this gene~cDNA EST yk512a3.5 comes from this gene~cDNA EST yk532a2.3 comes from this ge>   | 0.012   |
| 1871  | 11359776 | gi 11359776 pir T45059 hypothetical protein Y39B6B.gg [imported] - Caenorhabditis elegans<br>emb CAB60938.1  (AL132896) predicted using Genefinder; preliminary prediction [Caenorhabditis elegans]  | 3.6     |
| 1876  | 5453171  | gi 5453171 gb AAD43464.1  (AF113915) pre-mRNA splicing factor [Heterodera glycines]  | 2.1     |
| 1877  | 5453171  | gi 5453171 gb AAD43464.1  (AF113915) pre-mRNA splicing factor [Heterodera glycines]  | 2.1     |
| 1880  | 14752353 | gi 14752353 ref XP_050519.1  annexin A2 [Homo sapiens]   | 0.27    |
| 1881  | 7494821  | gi 7494821 pir T31996 hypothetical protein B0281.5 - Caenorhabditis elegans gb AAB66084.1  (AF016666) similar to human tumor necrosis factor-alpha-induced protein B12 (NID:g179304) [Caenorhabditis elegans]  | 3.8     |

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|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 1883  | 480482   | gi 480482 pir  S36953 cytochrome-c oxidase (EC 1.9.3.1) chain III - Herpetomonas samuelpessoai mitochondrion gb AAD09166.1  (L10852) cytochrome oxidase subunit III [Herpetomonas pessoai]               | 0.78    |
| 1885  | 5174493  | gi 5174493 ref NP_006050.1  laminin, gamma 3 precursor [Homo sapiens] gb AAD36991.1 AF041835_1 (AF041835) laminin gamma 3 chain precursor [Homo sapiens]   | 3E-12   |
| 1886  | 8922792  | gi 8922792 ref NP_060753.1  hypothetical protein FLJ10956 [Homo sapiens] ref XP_007214.2  hypothetical protein FLJ10956 [Homo sapiens] dbj BAA91925.1  (AK001818) unnamed protein product [Homo sapiens] | 5E-39   |
| 1889  | 7479561  | gi 7479561 pir  T35135 hypothetical protein SC4H8.04c SC4H8.04c - Streptomyces coelicolor emb CAA15871.1  (AL020958) hypothetical protein SC4H8.04c [Streptomyces coelicolor A3(2)]                      | 0.5     |
| 1890  | 7461128  | gi 7461128 pir  T03057 hypothetical protein 032R - Chilo iridescent virus gb AAB94431.1  (AF003534) hypothetical protein 032R [Chilo iridescent virus]   | 0.33    |
| 1891  | 8778367  | gi 8778367 gb AAF79375.1 AC007887_34 (AC007887) F15O4.28 [Arabidopsis thaliana]  | 6.6     |
| 1894  | 13475247 | gi 13475247 ref NP_106811.1  unknown protein [Mesorhizobium loti] dbj BAB52597.1  (AP003008) unknown protein [Mesorhizobium loti]  | 2.3     |
| 1895  | 2285958  | gi 2285958 emb CAA70903.1  (Y09763) GABRE [Homo sapiens]   | 2.7     |
| 1896  | 14729939 | gi 14729939 ref XP_038475.1  DKFZP564J102 protein [Homo sapiens]   | 0.007   |
| 1898  | 7504499  | gi 7504499 pir  T32750 hypothetical protein F57B10.1 - Caenorhabditis elegans gb AAB96719.1  (AF039713) Hypothetical protein F57B10.1 [Caenorhabditis elegans]   | 4.2     |
| 1900  | 10581310 | gi 10581310 gb AAG20067.1  (AE005086) methionyl aminopeptidase; Map [Halobacterium sp. NRC-1]  | 8.9     |
| 1902  | 111814   | gi 111814 pir  S21347 hypothetical protein 3 - rat emb CAA37646.1  (X53581) ORF3 [Rattus norvegicus]   | 0.3     |
| 1903  | 7290766  | gi 7290766 gb AAF46211.1  (AE003439) CG4557 gene product [Drosophila melanogaster]   | 0.38    |



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| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 1904  | 5139521  | gi 5139521 emb CAB45562.1  (AJ238798) CTRP protein [Plasmodium berghei] dbj BAA82322.1  (AB027129) adhesive protein-like molecule [Plasmodium berghei] gb AAF73158.1 AF149771_1 (AF149771) ookinete protein [Plasmodium berghei] | 8       |
| 1905  | 7489900  | gi 7489900 pir T18287 protein-tyrosine kinase (EC 2.7.1.112) - slime mold (Dictyostelium discoideum) gb AAB04999.1  (U64830) protein tyrosine kinase [Dictyostelium discoideum]  | 5.3     |
| 1908  | 6002776  | gi 6002776 gb AAF00134.1 AF149806_1 (AF149806) hypothetical protein [Oryza sativa]   | 0.15    |
| 1913  | 14773348 | gi 14773348 ref XP_038450.1  20849 [Homo sapiens]  | 2E-50   |
| 1916  | 7301187  | gi 7301187 gb AAF56319.1  (AE003748) CG5794 gene product [Drosophila melanogaster]   | 8       |
| 1918  | 3378685  | gi 3378685 emb CAA76071.1  (Y16104) replicase protein [Physalis mottle tymovirus]  | 0.13    |
| 1919  | 4501915  | gi 4501915 ref NP_003807.1  a disintegrin and metalloproteinase domain 9 preproprotein; meltrin gamma [Homo sapiens] gb AAC50403.1  (U41766) metalloprotease/disintegrin/cysteine-rich protein precursor [Homo sapiens]          | 0.002   |
| 1922  | 14587070 | gi 14587070 gb AAK70463.1 AF387344_4 (AF387344) spore germination protein GerLC [Bacillus cereus]  | 8.4     |
| 1924  | 7291161  | gi 7291161 gb AAF46595.1  (AE003450) CG2892 gene product [Drosophila melanogaster]   | 6       |
| 1925  | 7446016  | gi 7446016 pir E70895 hypothetical glycine-rich protein Rv1087 - Mycobacterium tuberculosis (strain H37RV) emb CAA17203.1  (AL021897) PE_PGRS [Mycobacterium tuberculosis]   | 3.6     |
| 1926  | 11595522 | gi 11595522 emb CAC18316.1  (AL451022) hypothetical protein [Neurospora crassa]  | 5.9     |
| 1930  | 14043326 | gi 14043326 gb AAH07658.1 AAH07658 (BC007658) Unknown (protein for MGC:747) [Homo sapiens]   | 8E-76   |
| 1931  | 13810543 | gi 13810543 dbj BAB43950.1  (AB051633) ookinete surface protein Pos28-2 [Plasmodium ovale]   | 3.1     |
| 1933  | 7206826  | gi 7206826 gb AAF39985.1  (AC006696) contains similarity to other proline-rich proteins [Caenorhabditis elegans]   | 6.6     |

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| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 1934  | 14749721 | gi 14749721 ref XP_027893.1  similar to ALU SUBFAMILY SB1 SEQUENCE CONTAMINATION WARNING ENTRY (H. sapiens) [Homo sapiens]   | 2.1     |
| 1935  | 12324211 | gi 12324211 gb AAG52077.1 AC012679_15 (AC012679) putative proline-rich protein precursor; 93710-91881 [Arabidopsis thaliana]   | 2.1     |
| 1940  | 4204305  | gi 4204305 gb AAD10686.1  (AC003027) Hypothetical protein [Arabidopsis thaliana]   | 5.4     |
| 1955  | 14783118 | gi 14783118 ref XP_043478.1  hypothetical protein XP_043478 [Homo sapiens]   | 4.7     |
| 1959  | 13375860 | gi 13375860 ref NP_078907.1  hypothetical protein FLJ23342 [Homo sapiens] dbj BAB15618.1  (AK026995) unnamed protein product [Homo sapiens]                                | 0.2     |
| 1962  | 7304316  | gi 7304316 gb AAF59348.1  (AE003844) CG2052 gene product [Drosophila melanogaster]   | 8.2     |
| 1963  | 7513579  | gi 7513579 pir T09064 1-acylglycerol-3-phosphate O-acyltransferase (EC 2.3.1.51) - mouse gb AAB82009.1  (AF030001) lysophatidic acid acyl transferase-alpha [Mus musculus] | 1.1     |
| 1964  | 7512671  | gi 7512671 pir T12545 hypothetical protein DKFZp434N074.1 - human (fragments) emb CAB46377.1  (AL096732) hypothetical protein [Homo sapiens]                               | 3.1     |
| 1972  | 13249541 | gi 13249541 gb AAK15414.1  (AY015597) dissimilatory sulfite reductase subunit B [uncultured sulfate-reducing bacterium]  | 2       |
| 1976  | 8134766  | gi 8134766 sp Q9ZES2 TRPE_BUCTC ANTHRANILATE SYNTHASE COMPONENT I emb CAA09993.1  (AJ012333) anthranilate synthase large subunit [Buchnera aphidicola]                     | 5.6     |
| 1977  | 7518768  | gi 7518768 pir A71111 hypothetical protein PH0656 - Pyrococcus horikoshii dbj BAA29747.1  (AP000003) 107aa long hypothetical protein [Pyrococcus horikoshii]               | 9.3     |
| 1982  | 14749721 | gi 14749721 ref XP_027893.1  similar to ALU SUBFAMILY SB1 SEQUENCE CONTAMINATION WARNING ENTRY (H. sapiens) [Homo sapiens]   | 1.9     |

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| 1983  | 2498123  | gi 2498123 sp O02833 ALS_PAPHA INSULIN-LIKE GROWTH FACTOR BINDING PROTEIN COMPLEX ACID LABILE CHAIN PRECURSOR (ALS) pir JC5239 insulin-like growth factor acid-labile chain - baboon  | 4.4     |
| 1990  | 2911545  | gi 2911545 emb CAA75449.1  (Y15173) E6 protein [Human papillomavirus type 75]   | 4.2     |
| 1992  | 1090764  | gi 1090764 prf 2019432A cyclin-dependent kinase 5 activator [Bos taurus]  | 2.1     |
| 1993  | 7446170  | gi 7446170 pir T02529 myb-related protein F13M22.13 - Arabidopsis thaliana gb AAC23633.1  (AC004684) putative MYB family transcription factor [Arabidopsis thaliana] gb AAD53101.1 AF175996_1 (AF175996) putative transcription factor [Arabidopsis thaliana]   | 5.9     |
| 1994  | 4501915  | gi 4501915 refNP_003807.1  a disintegrin and metalloproteinase domain 9 preproprotein; meltrin gamma [Homo sapiens] gb AAC50403.1  (U41766) metalloprotease/disintegrin/cysteine-rich protein precursor [Homo sapiens]  | 0.002   |
| 1997  | 12853260 | gi 12853260 dbj BAB29697.1  (AK015063) putative [Mus musculus]  | 6.1     |
| 2000  | 6492289  | gi 6492289 gb AAF14258.1 AF137068_1 (AF137068) cubilin [Canis familiaris]   | 4.6     |
| 2001  | 2828501  | gi 2828501 sp P40899 ISP3_SCHPO SEXUAL DIFFERENTIATION PROCESS PROTEIN ISP3 pir T38112 sexual differentiation process protein isp3 - fission yeast (Schizosaccharomyces pombe) emb CAB03599.1  (Z81312) sexual differentiation process protein isp3; meiotic expression upregulated [Schizosaccharomyces pombe] | 7.9     |
| 2022  | 4206157  | gi 4206157 gb AAD11433.1  (AF109404) transposase [Streptomyces scabiei]   | 3.4     |
| 2026  | 11466224 | gi 11466224 refNP_062847.1  ORF1, contains 4 trans membrane regions, putative [Physarum polycephalum] dbj BAB08081.1  (AB027295) ORF1, contains 4 trans membrane regions, putative [Physarum polycephalum]  | 1.2     |

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| 2027  | 7507536  | gi 7507536 pir T24739 hypothetical protein T09E11.4 - <i>Caenorhabditis elegans</i> emb CAB03533.1  (Z81147) contains similarity to Pfam domain: PF01757 (Domain of unknown function), Score=594.0, E-value=3e-175, N=1 [ <i>Caenorhabditis elegans</i> ]  | 4.3     |
| 2028  | 6102749  | gi 6102749 emb CAB59307.1  (AJ236287) NADH dehydrogenase subunit F [ <i>Carphalea glaucescens</i> ]  | 1.9     |
| 2031  | 7486224  | gi 7486224 pir T08553 hypothetical protein F27B13.160 - <i>Arabidopsis thaliana</i> emb CAB43667.1  (AL050352) putative protein [ <i>Arabidopsis thaliana</i> ] emb CAB79750.1  (AL161575) putative protein [ <i>Arabidopsis thaliana</i> ]  | 2.7     |
| 2032  | 7462619  | gi 7462619 pir F72210 hypothetical protein TM1801 - <i>Thermotoga maritima</i> (strain MSB8) gb AAD36864.1 AE001817_11 (AE001817) hypothetical protein [ <i>Thermotoga maritima</i> ]  | 6.2     |
| 2035  | 7296128  | gi 7296128 gb AAF51422.1  (AE003587) CG4629 gene product [ <i>Drosophila melanogaster</i> ]  | 3.4     |
| 2038  | 14760974 | gi 14760974 ref XP_034809.1  similar to putative gag-pro-pol polyprotein (H. sapiens) [ <i>Homo sapiens</i> ]  | 1E-13   |
| 2041  | 14601134 | gi 14601134 ref NP_147662.1  hypothetical protein [ <i>Aeropyrum pernix</i> ] pir H72698 hypothetical protein APE1008 - <i>Aeropyrum pernix</i> (strain K1) dbj BAA79992.1  (AP000060) 123aa long hypothetical protein [ <i>Aeropyrum pernix</i> ]   | 2.6     |
| 2043  | 4507537  | gi 4507537 ref NP_003260.1  nuclear receptor subfamily 2, group E, member 1; tailless ( <i>Drosophila</i> ) homolog; tailless homolog ( <i>Drosophila</i> ) [ <i>Homo sapiens</i> ] ref XP_004530.1  54551 [ <i>Homo sapiens</i> ] ref XP_038737.1  nuclear receptor subfamily 2, group E, member 1 [ <i>Homo sapiens</i> ] sp Q9Y466 NR21_HUMAN ORPHAN NUCLEAR RECEPTOR NR2E1 (NUCLEAR RECEPTOR TLX) (TAILLESS HOMOLOG) (TLL) (HTLL) emb CAA73725.1  (Y13276) Tailless protein [ <i>Homo sapiens</i> ] emb CAB75626.1  (AL078596) dJ429G5.1 (nuclear receptor subfamily 2, group E, member 1) [ <i>Homo sapiens</i> ] gb AAG31945.1 AF220532_1 (AF220532) orphan nuclear receptor [ <i>Homo sapiens</i> ] | 9E-10   |

**Table 3B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2044  | 7300319  | gi 7300319 gb AAF55480.1  (AE003719) CG7305 gene product [ <i>Drosophila melanogaster</i> ]  | 3.3     |
| 2046  | 7498832  | gi 7498832 pir T34212 hypothetical protein F10E7.4 - <i>Caenorhabditis elegans</i> gb AAA82427.1  (U41264) coded for by <i>C. elegans</i> cDNA yk99a6.5; coded for by <i>C. elegans</i> cDNA yk72g6.5; coded for by <i>C. elegans</i> cDNA yk99a6.3; coded for by <i>C. elegans</i> cDNA yk72g6.3; coded for by <i>C. elegans</i> cDNA yk127a2.5; coded for by <i>C. elegans</i> cDNA yk127a2.3; Simila>   | 9.7     |
| 2050  | 13643847 | gi 13643847 ref XP_011044.2  8-oxoguanine DNA glycosylase [ <i>Homo sapiens</i> ] ref XP_016414.1  8-oxoguanine DNA glycosylase [ <i>Homo sapiens</i> ] ref XP_016415.1  8-oxoguanine DNA glycosylase [ <i>Homo sapiens</i> ] ref XP_031967.1  8-oxoguanine DNA glycosylase [ <i>Homo sapiens</i> ] ref XP_031959.1  8-oxoguanine DNA glycosylase, isoform 2d [ <i>Homo sapiens</i> ] ref XP_031961.1  8-oxoguanine DNA glycosylase, isoform 1a [ <i>Homo sapiens</i> ] ref XP_052277.1  similar to 8-oxoguanine DNA glycosylase ( <i>H. sapiens</i> ) [ <i>Homo sapiens</i> ] | 1.2     |
| 2051  | 7474551  | gi 7474551 pir E69792 conserved hypothetical protein yeeA - <i>Bacillus subtilis</i> emb CAB12496.1  (Z99107) similar to hypothetical proteins [ <i>Bacillus subtilis</i> ]  | 7       |
| 2060  | 3913201  | gi 3913201 sp Q58511 CCA_METJA TRNA NUCLEOTIDYLTRANSFERASE (TRNA ADENYLYLTRANSFERASE) (TRNA CCA-PYROPHOSPHORYLASE) (CCA-ADDING ENZYME) gb AAB99114.1  (U67554) tRNA nucleotidyltransferase (cca) [ <i>Methanococcus jannaschii</i> ]   | 5.9     |
| 2072  | 13186342 | gi 13186342 gb AAK15384.1  (AF211134) valyl-tRNA synthetase [ <i>Carsonella ruddii</i> ]   | 2.8     |

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| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2075  | 6225820  | gi 6225820 sp O04226 P5CS_ORYSA DELTA 1-PYRROLINE-5-CARBOXYLATE SYNTHETASE (P5CS) [INCLUDES: GLUTAMATE 5-KINASE (GAMMA-GLUTAMYL KINASE) (GK); GAMMA-GLUTAMYL PHOSPHATE REDUCTASE (GPR) (GLUTAMATE-5-SEMIALDEHYDE DEHYDROGENASE) (GLUTAMYL-GAMMA-SEMIALDEHYDE DEHYDROGENASE)] pir  T03695 delta 1 pyrroline-5-carboxylate synthetase - rice dbj BAA19916.1  (D49714) deltal-pyrroline-5-carboxylate synthetase [Oryza sativa] | 9.4     |
| 2077  | 4028153  | gi 4028153 gb AAC96117.1  (AF083221) putative neurotransmitter receptor [Takifugu rubripes]  | 2       |
| 2080  | 4902680  | gi 4902680 emb CAB43550.1  (AL031673) dJ694B14.3 (novel haloacid dehalogenase-like hydrolase family protein similar to (archaea) bacterial proteins) [Homo sapiens]  | 2.9     |
| 2084  | 6322760  | gi 6322760 ref NP_012833.1  Ykl090wp [Saccharomyces cerevisiae] sp P36075 YKJ0_YEAST HYPOTHETICAL 50.9 KD PROTEIN IN BUD2-MIF2 INTERGENIC REGION pir  S37915 hypothetical protein YKL090w - yeast (Saccharomyces cerevisiae) emb CAA81928.1  (Z28090) ORF YKL090w [Saccharomyces cerevisiae]   | 2.8     |
| 2085  | 6635084  | gi 6635084 emb CAB64573.1  (AL135930) hypothetical protein L4738.02 [Leishmania major]   | 3.6     |
| 2086  | 7487726  | gi 7487726 pir  T05814 hypothetical protein T5K18.90 - Arabidopsis thaliana emb CAA18618.1  (AL022580) hypothetical protein [Arabidopsis thaliana] emb CAB78933.1  (AL161550) hypothetical protein [Arabidopsis thaliana]  | 5.9     |
| 2089  | 13385468 | gi 13385468 ref NP_080247.1  RIKEN cDNA 2900001A12 gene [Mus musculus] dbj BAB28377.1  (AK012645) putative [Mus musculus] dbj BAB28865.1  (AK013457) putative [Mus musculus]   | 4E-11   |
| 2090  | 14742770 | gi 14742770 ref XP_039393.1  KIAA1550 protein [Homo sapiens]   | 3.2     |
| 2092  | 2982251  | gi 2982251 gb AAC32113.1  (AF051208) putative RNA-binding protein [Picea mariana]  | 7.6     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2095  | 12718478 | gi 12718478 emb CAC28807.1  (AL513466) hypothetical protein [Neurospora crassa]  | 3.1     |
| 2096  | 5532964  | gi 5532964 gb AAD44957.1  (AF156655) MHC class I heavy chain [Ambystoma mexicanum]   | 9.3     |
| 2097  | 1711658  | gi 1711658 sp P54797 T10_MOUSE SER/THR-RICH PROTEIN T10 IN DGCR REGION pir S37488 gene T10 protein - mouse emb CAA52612.1  (X74504) T10 [Mus musculus]   | 4.3     |
| 2098  | 14193393 | gi 14193393 gb AAK55953.1 AF268062_2 (AF268062) RNA polymerase beta-prime subunit [Candidatus Carsonella ruddii]   | 2.1     |
| 2099  | 7243081  | gi 7243081 dbj BAA92588.1  (AB037771) KIAA1350 protein [Homo sapiens]  | 7E-97   |
| 2100  | 11357181 | gi 11357181 pir T49996 AtAGP4 - Arabidopsis thaliana gb AAC77826.1  (AF082301) arabinogalactan-protein [Arabidopsis thaliana] gb AAD38870.1 AF060874_1 (AF060874) AtAGP4 [Arabidopsis thaliana] emb CAB89400.1  (AL353995) AtAGP4 [Arabidopsis thaliana] gb AAK49601.1 AF372885_1 (AF372885) AT5g10430/F12B17_220 [Arabidopsis thaliana] gb AAK68734.1  (AY042794) AtAGP4 [Arabidopsis thaliana] | 1.2     |
| 2103  | 7497369  | gi 7497369 pir T32512 hypothetical protein C44B12.4 - Caenorhabditis elegans gb AAB88327.1  (AF036692) Hypothetical protein C44B12.4 [Caenorhabditis elegans]  | 6.7     |
| 2109  | 14485227 | gi 14485227 gb AAK62977.1 AF384372_3 (AF384372) surface antigen [Hepatitis B virus]  | 5.7     |
| 2111  | 9711862  | gi 9711862 dbj BAB07956.1  (AP002524) putative extensin-like protein [Oryza sativa] dbj BAB33013.1  (AP003118) putative extensin-like protein [Oryza sativa]   | 10      |
| 2114  | 9759203  | gi 9759203 dbj BAB09740.1  (AB015476) heat shock transcription factor HSF30-like protein [Arabidopsis thaliana]  | 8.4     |
| 2115  | 204070   | gi 204070 gb AAA41130.1  (M22030) electron transfer flavoprotein alpha-subunit [Rattus norvegicus]   | 0.75    |
| 2117  | 3638957  | gi 3638957 gb AAC36301.1  (AC004877) sco-spondin-mucin-like; similar to P98167 (PID:g1711548); details of intron/exon structure uncertain [Homo sapiens]   | 8.1     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2121  | 14250436 | gi 14250436 gb AAH08653.1 AAH08653 (BC008653)<br>Similar to LRP16 protein [Mus musculus]  | 9.3     |
| 2126  | 14760522 | gi 14760522 ref XP_038798.1  7371 [Homo sapiens]<br>gb AAK01445.1  (AF334585) NIR3 [Homo sapiens]   | 5E-39   |
| 2134  | 3024944  | gi 3024944 sp Q58366 Y956_METJA<br>HYPOTHETICAL PROTEIN MJ0956 pir  D64419<br>hypothetical protein MJ0956 - Methanococcus<br>jannaschii gb AAB98969.1  (U67539) M. jannaschii<br>predicted coding region MJ0956 [Methanococcus<br>jannaschii]   | 8.4     |
| 2135  | 6606266  | gi 6606266 gb AAF19148.1 AF158634_1 (AF158634)<br>Vrgal [Aegilops ventricosa]   | 7.1     |
| 2137  | 1729878  | gi 1729878 sp P54410 TCPH_TETTH T-COMPLEX<br>PROTEIN 1, ETA SUBUNIT (TCP-1-ETA) (CCT-<br>ETA) pir  S71338 t-complex protein 1 theta chain -<br>Tetrahymena thermophila (fragment) gb AAC47007.1 <br>(U46028) CCTeta [Tetrahymena thermophila]<br>prf  2209286B chaperonin CCT-eta [Tetrahymena<br>thermophila]  | 4.4     |
| 2141  | 3688193  | gi 3688193 emb CAA08995.1  (AJ010091) MAP3K<br>alpha 1 protein kinase [Brassica napus]  | 6.9     |
| 2142  | 7491910  | gi 7491910 pir  T41367 hypothetical protein<br>SPCC4G3.09c - fission yeast (Schizosaccharomyces<br>pombe) emb CAB09776.1  (Z97052) hypothetical<br>protein [Schizosaccharomyces pombe]  | 3.3     |
| 2144  | 6513832  | gi 6513832 gb AAF14807.1 AF197815_1 (AF197815)<br>maturase [Alisma plantago-aquatica]   | 1.5     |
| 2148  | 6323084  | gi 6323084 ref NP_013156.1  transcription factor,<br>probable member of histone acetyltransferase SAGA<br>complex; Spt8p [Saccharomyces cerevisiae]<br>sp P38915 SPT8_YEAST TRANSCRIPTION<br>FACTOR SPT8 pir  S47898 transcription factor SPT8 -<br>yeast (Saccharomyces cerevisiae) gb AAA53585.1 <br>(M94955) transcription factor [Saccharomyces<br>cerevisiae] emb CAA64302.1  (X94607) transcription<br>factor [Saccharomyces cerevisiae] emb CAA97585.1 <br>(Z73227) ORF YLR055c [Saccharomyces cerevisiae] | 5.8     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2151  | 1074219  | gi 1074219 pir S49239 hypothetical protein 2 (capsulation locus) - Haemophilus influenzae (strain RM107)  | 4       |
| 2153  | 10946710 | gi 10946710 ref NP_067350.1  Rhesus blood group-associated B glycoprotein; Rh type B glycoprotein [Mus musculus] gb AAF19371.1  (AF193808) Rh type B glycoprotein [Mus musculus]  | 3.5     |
| 2159  | 9625644  | gi 9625644 ref NP_039895.1  BDLF2 late reading frame [Human herpesvirus 4] sp P03225 BDL2_EBV PROTEIN BDLF2 pir QQBE44 BDLF2 protein - human herpesvirus 4 (strain B95-8) emb CAA24836.1  (V01555) BDLF2 late reading frame [Human herpesvirus 4] | 3.7     |
| 2160  | 220578   | gi 220578 dbj BAA00447.1  (D00570) open reading frame (251 AA) [Mus musculus]   | 4.7     |
| 2165  | 9633076  | gi 9633076 ref NP_050182.1  B4 [Human herpesvirus 6B] pir T44148 hypothetical protein B4 [imported] - human herpesvirus 6 (strain Z29) gb AAD49620.1 AF157706_7 (AF157706) B4 [Human herpesvirus 6B]  | 0.057   |
| 2168  | 135838   | gi 135838 sp P01267 THYG_BOVIN THYROGLOBULIN PRECURSOR pir UIBO thyroglobulin precursor - bovine emb CAA26584.1  (X02815) thyroglobulin precursor [Bos taurus] prf 1109240A thyroglobulin [Bos taurus]  | 2       |
| 2173  | 11360154 | gi 11360154 pir T46337 hypothetical protein DKFZp434O2413.1 - human (fragment) emb CAB70664.1  (AL137265) hypothetical protein [Homo sapiens]   | 3.7     |
| 2177  | 181400   | gi 181400 gb AAA35748.1  (M34225) cytokeratin 8 [Homo sapiens]  | 7E-53   |
| 2181  | 11347010 | gi 11347010 pir B81303 probable membrane protein Cj1013c [imported] - Campylobacter jejuni (strain NCTC 11168) emb CAB73269.1  (AL139077) putative membrane protein [Campylobacter jejuni]  | 0.1     |
| 2182  | 8745261  | gi 8745261 gb AAF78857.1 AF134516_1 (AF134516) VP4 [Banna virus]  | 6       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2183  | 285275   | gi 285275 pir A43963 envelope glycoprotein G(envelope glycoprotein G1, envelope glycoprotein G2) - Hantavirus sp.=Puumala virus gb AAB22506.1  envelope glycoprotein G(envelope glycoprotein G1, envelope glycoprotein G2) [Hantavirus sp.=Puumala virus, Hallnas strain, Peptide, 1148 aa] | 0.6     |
| 2186  | 7506378  | gi 7506378 pir T23989 hypothetical protein R07A4.3 - Caenorhabditis elegans emb CAA91763.1  (Z67756) cDNA EST yk63e10.5 comes from this gene~cDNA EST yk63e10.3 comes from this gene [Caenorhabditis elegans]   | 8.9     |
| 2187  | 4511976  | gi 4511976 gb AAD21536.1  (AF088896) unknown [Zymomonas mobilis]  | 0.65    |
| 2188  | 14761847 | gi 14761847 ref XP_017198.2  hypothetical protein FLJ12085 [Homo sapiens]   | 3E-13   |
| 2192  | 5835478  | gi 5835478 ref NP_008404.1 CYTB_13475 cytochrome b [Balanoglossus carnosus] pir T11138 ubiquinol--cytochrome-c reductase (EC 1.10.2.2) cytochrome b - acorn worm mitochondrion gb AAD11951.1  (AF051097) cytochrome b [Balanoglossus carnosus]  | 0.95    |
| 2195  | 14906463 | gi 14906463 gb AAK72690.1  (AY039648) transcription factor Rel 1 [Crassostrea gigas]  | 9.3     |
| 2196  | 6680964  | gi 6680964 ref NP_031758.1  procollagen, type XVII, alpha 1 [Mus musculus] pir A46053 bullous pemphigoid antigen, BPAG2, type XVII collagen alpha 1-chain - mouse gb AAA37443.1  (L08407) collagen type XVII [Mus musculus]   | 6.8     |
| 2197  | 7206631  | gi 7206631 gb AAF39790.1  (AC006631) Hypothetical protein F27B3.2 [Caenorhabditis elegans]  | 4.3     |
| 2201  | 2564679  | gi 2564679 gb AAB81836.1  (AF023484) putative KP78 protein kinase [Drosophila melanogaster]   | 0.83    |
| 2204  | 9558143  | gi 9558143 emb CAC00269.1  (AL160371) possible f16d3.1 protein [Leishmania major]   | 5.3     |
| 2205  | 13813146 | gi 13813146 gb AAK40384.1  (AE006643) ATP-dependent helicase [Sulfolobus solfataricus]  | 4.3     |
| 2206  | 7662168  | gi 7662168 ref NP_055497.1  KIAA0535 gene product [Homo sapiens] dbj BAA25461.1  (AB011107) KIAA0535 protein [Homo sapiens]   | 0.0003  |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2214  | 9229890  | gi 9229890 dbj BAB00618.1  (AB036841) prickles 2 [Ciona intestinalis]  | 4.4     |
| 2217  | 3435174  | gi 3435174 gb AAC32342.1  (AF061251) O antigen flippase Wzx [Escherichia coli]<br>gb AAG57097.1 AE005429_8 (AE005429) O antigen flippase Wzx [Escherichia coli O157:H7 EDL933]   | 2.5     |
| 2225  | 5725923  | gi 5725923 gb AAD48242.1 AF089987_1 (AF089987) four-loop conotoxin ABVIF [Conus abbreviatus]<br>gb AAD48243.1 AF089988_1 (AF089988) four-loop conotoxin ABVIF [Conus abbreviatus]<br>gb AAD48244.1 AF089989_1 (AF089989) four-loop conotoxin ABVIF [Conus abbreviatus]<br>gb AAD48245.1 AF089990_1 (AF089990) four-loop conotoxin ABVIF [Conus abbreviatus]  | 3.8     |
| 2228  | 1705523  | gi 1705523 sp P52650 C24A_PIG CYTOCHROME B-245 LIGHT CHAIN (P22 PHAGOCYTE B-CYTOCHROME) (NEUTROPHIL CYTOCHROME B, 22 KD POLYPEPTIDE) (P22-PHOX) (CYTOCHROME B(558) ALPHA CHAIN) (SUPEROXIDE-GENERATING NADPH OXIDASE LIGHT CHAIN SUBUNIT) gb AAA64635.1  (U02477) NADPH oxidase light chain subunit [Sus scrofa]   | 0.48    |
| 2240  | 730885   | gi 730885 sp P07989 TIM_SALPO TYPE I RESTRICTION ENZYME STYSP1 M PROTEIN (M.STYSP1) gb AAA27143.1  (L02507) restriction-modification enzyme type I M subunit [Salmonella enterica]   | 4.9     |
| 2241  | 6753572  | gi 6753572 ref NP_034126.1  cytochrome P450, 24 [Mus musculus] sp Q64441 CP24_MOUSE CYTOCHROME P450-CC24, MITOCHONDRIAL PRECURSOR (P450-CC24) (VITAMIN D(3) 24-HYDROXYLASE) (1,25-DIHYDROXYVITAMIN D(3) 24-HYDROXYLASE) (24-OHASE) pir S60033 25-hydroxyvitamin D3 24-hydroxylase precursor - mouse dbj BAA08416.1  (D49438) 25-hydroxyvitamin D3 24-hydroxylase precursor [Mus musculus] dbj BAA21843.1  (D89669) vitamin D-24-hydroxylase [Mus musculus] | 9.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2243  | 14578299 | gi 14578299 gb AAF99465.1  (AY003872) PV1H14095_P [Plasmodium vivax]   | 3.7     |
| 2245  | 1916617  | gi 1916617 gb AAB51194.1  (U66003) ADAM 13 [Xenopus laevis]  | 0.45    |
| 2249  | 5739073  | gi 5739073 gb AAD50327.1  (AF063693) type XIII collagen [Mus musculus]   | 2.5     |
| 2254  | 3135611  | gi 3135611 gb AAC29067.1  (AF062485) cellulose synthase [Arabidopsis thaliana]   | 3.1     |
| 2256  | 281689   | gi 281689 pir  S27657 hypothetical protein 1 - Rhizobium meliloti gb AAA26255.1  (M94085) not homologous to known sequences as of 2/92; ORF1; putative [Sinorhizobium meliloti]  | 6       |
| 2257  | 10434352 | gi 10434352 dbj BAB14232.1  (AK022759) unnamed protein product [Homo sapiens]  | 2E-23   |
| 2258  | 1504022  | gi 1504022 dbj BAA13210.1  (D86974) KIAA0220 [Homo sapiens]  | 4E-21   |
| 2266  | 1871176  | gi 1871176 gb AAB63536.1  (U90439) unknown protein [Arabidopsis thaliana]  | 7.5     |
| 2270  | 12846015 | gi 12846015 dbj BAB26996.1  (AK010513) putative [Mus musculus]   | 8       |
| 2273  | 12860337 | gi 12860337 dbj BAB31923.1  (AK019929) putative [Mus musculus]   | 5       |
| 2276  | 994736   | gi 994736 gb AAA75561.1  (M18327) LacOPZ-alpha peptide from pUC9; putative [unidentified cloning vector] gb AAA75563.1  (M18328) LacOPZ-alpha peptide from pUC9; putative [Cloning vector pBGS9+] gb AAA75565.1  (M18329) LacOPZ-alpha peptide from pUC9; putative [Cloning vector pBGS9-] | 0.00002 |
| 2280  | 11352313 | gi 11352313 pir  G83376 probable trehalose synthase PA2152 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG05540.1 AE004642_7 (AE004642) probable trehalose synthase [Pseudomonas aeruginosa]  | 2       |
| 2285  | 7486992  | gi 7486992 pir  T00831 hypothetical protein T13L16.5 - Arabidopsis thaliana gb AAD20114.2  (AC006201) hypothetical protein [Arabidopsis thaliana]  | 1.4     |
| 2286  | 10173203 | gi 10173203 dbj BAB04308.1  (AP001509) BH0589~unknown conserved protein in others [Bacillus halodurans]  | 7.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2289  | 7497857  | gi 7497857 pir T20180 hypothetical protein C53B4.4a - <i>Caenorhabditis elegans</i> emb CAA92457.1  (Z68215) contains similarity to Pfam domain: PF00130 (Phorbol esters/diacylglycerol binding domain (C1 domain)), Score=12.8, E-value=0.0015, N=1; PF00595 (PDZ domain (Also known as DHR or GLGF).), Score=34.8, E-value=6.4e-07, N=1~cDNA EST CEMSC66F come> | 9.6     |
| 2291  | 6424831  | gi 6424831 gb AAF08166.1  (AF130210) NADH dehydrogenase subunit F [ <i>Impatiens biflora</i> ]  | 6.1     |
| 2292  | 7489002  | gi 7489002 pir T07021 extensin-like protein Dif10 precursor - tomato (fragment) emb CAA67813.1  (X99451) extensin-like protein Dif10 [ <i>Lycopersicon esculentum</i> ]   | 5.6     |
| 2294  | 1684828  | gi 1684828 gb AAB36537.1  (U77681) tyrosine kinase receptor [ <i>Xenopus laevis</i> ]   | 2       |
| 2297  | 12859724 | gi 12859724 dbj BAB31753.1  (AK019486) putative [ <i>Mus musculus</i> ]   | 0.0003  |
| 2301  | 11498284 | gi 11498284 ref NP_069510.1  adenylate kinase (adk) [ <i>Archaeoglobus fulgidus</i> ] sp O29581 KAD_ARCFU ADENYLATE KINASE (ATP-AMP TRANSPHOSPHORYLASE) pir D69334 adenylate kinase (EC 2.7.4.3) - <i>Archaeoglobus fulgidus</i> gb AAB90565.1  (AE001058) adenylate kinase (adk) [ <i>Archaeoglobus fulgidus</i> ]   | 3E-13   |
| 2309  | 14725330 | gi 14725330 ref XP_002254.2  mitochondrial translational initiation factor 2 precursor [ <i>Homo sapiens</i> ]  | 4.5     |
| 2313  | 79651    | gi 79651 pir A30189 iron stress-induced hypothetical protein precursor - <i>Synechococcus</i> sp  | 2.8     |
| 2314  | 7500007  | gi 7500007 pir T16186 hypothetical protein F27D9.4 - <i>Caenorhabditis elegans</i> gb AAA93383.1  (U49829) Hypothetical protein F27D9.4 [ <i>Caenorhabditis elegans</i> ]   | 7.1     |
| 2317  | 13517833 | gi 13517833 gb AAK29011.1  (AF344620) long-wavelength rhodopsin [ <i>Ceratina calcarata</i> ]   | 3.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2318  | 7478661  | gi 7478661 pir F70662 probable plcC protein - Mycobacterium tuberculosis (strain H37RV) emb CAB06146.1  (Z83860) plcC [Mycobacterium tuberculosis] gb AAK46707.1  (AE007081) phospholipase C [Mycobacterium tuberculosis CDC1551] | 4.4     |
| 2323  | 14768227 | gi 14768227 ref XP_012121.3  purinergic receptor P2X, ligand-gated ion channel, 7 [Homo sapiens]  | 4.3     |
| 2328  | 283032   | gi 283032 pir S22456 hydroxyproline-rich glycoprotein - perennial teosinte emb CAA45514.1  (X64173) hydroxyproline-rich glycoprotein [Zea diploperennis]  | 5.4     |
| 2329  | 10241645 | gi 10241645 emb CAC09484.1  (AL442113) putative protein [Oryza sativa]  | 9.1     |
| 2330  | 14733085 | gi 14733085 ref XP_003575.3  soluble liver antigen/liver pancreas antigen [Homo sapiens]  | 1E-17   |
| 2335  | 12188796 | gi 12188796 emb CAC21494.1  (AJ278866) MchF protein [Escherichia coli]  | 4.7     |
| 2340  | 2492604  | gi 2492604 sp P78595 CDR2_CANAL MULTIDRUG RESISTANCE PROTEIN CDR2 gb AAB96797.1  (U63812) drug resistance protein 2 [Candida albicans]  | 6.4     |
| 2345  | 13365569 | gi 13365569 dbj BAB39114.1  (AP002897) hypothetical protein~similar to Oryza sativa chromosome 1, P0665D10.16   | 1.8     |
| 2346  | 1334612  | gi 1334612 emb CAA41034.1  (X57968) nad1 [Triticum aestivum]  | 4.8     |
| 2351  | 1334612  | gi 1334612 emb CAA41034.1  (X57968) nad1 [Triticum aestivum]  | 4.8     |
| 2352  | 1334612  | gi 1334612 emb CAA41034.1  (X57968) nad1 [Triticum aestivum]  | 4.6     |
| 2353  | 1334612  | gi 1334612 emb CAA41034.1  (X57968) nad1 [Triticum aestivum]  | 4.8     |
| 2356  | 1334612  | gi 1334612 emb CAA41034.1  (X57968) nad1 [Triticum aestivum]  | 4.4     |
| 2357  | 14250644 | gi 14250644 gb AAH08786.1 AAH08786 (BC008786) integrin, alpha 5 (fibronectin receptor, alpha polypeptide) [Homo sapiens]  | 2       |
| 2367  | 7293054  | gi 7293054 gb AAF48440.1  (AE003498) Top1 gene product [Drosophila melanogaster]  | 1.2     |
| 2369  | 13959344 | gi 13959344 sp P82957 DM43_DIDMA VENOM METALLOPROTEINASE INHIBITOR DM43   | 8.2     |

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| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2390  | 15011889 | gi 15011889 ref NP_077251.1  oxysterol binding protein 2 [Mus musculus] emb CAC16404.2  (AJ278263) oxystyrol-binding protein homologue 1 [Mus musculus domesticus]   | 1.9     |
| 2393  | 450730   | gi 450730 emb CAA50838.1  (X71982) ORF j18L; potential membrane spanning region; potential glycosylation site [African swine fever virus]  | 2.5     |
| 2398  | 7445990  | gi 7445990 pir G72290 branched chain amino acid ABC transporter, ATP-binding protein - Thermotoga maritima (strain MSB8) gb AAD36215.1 AE001771_8 (AE001771) branched chain amino acid ABC transporter, ATP-binding protein [Thermotoga maritima]  | 7.4     |
| 2401  | 11990448 | gi 11990448 dbj BAB19782.1  (AB052747) vascular cell adhesion molecule-1 6D variant lacking D7 [Bos taurus]  | 4.6     |
| 2402  | 12841678 | gi 12841678 dbj BAB25308.1  (AK007856) putative [Mus musculus]   | 1E-39   |
| 2403  | 5052967  | gi 5052967 gb AAD38786.1 AF151533_1 (AF151533) polyketide synthase [Nodulisporium sp. ATCC74245]   | 6.3     |
| 2407  | 8099350  | gi 8099350 gb AAF72105.1 AF154847_1 (AF154847) 33 kDa Vamp-associated protein [Homo sapiens]   | 5.2     |
| 2410  | 267344   | gi 267344 sp P29791 VGLF_BRSVA FUSION GLYCOPROTEIN PRECURSOR [CONTAINS: FUSION GLYCOPROTEIN F2; FUSION GLYCOPROTEIN F1] pir VGNZBA cell fusion glycoprotein precursor - bovine respiratory syncytial virus (strain A51908) gb AAA42804.1  (M82816) fusion protein F [Bovine respiratory syncytial virus] | 1.4     |
| 2417  | 12856615 | gi 12856615 dbj BAB30727.1  (AK017396) putative [Mus musculus]   | 8E-49   |
| 2425  | 11347010 | gi 11347010 pir B81303 probable membrane protein Cj1013c [imported] - Campylobacter jejuni (strain NCTC 11168) emb CAB73269.1  (AL139077) putative membrane protein [Campylobacter jejuni]   | 0.89    |
| 2426  | 7499991  | gi 7499991 pir T29526 hypothetical protein F27C1.7 - Caenorhabditis elegans gb AAB37654.1  (U80441) Hypothetical protein F27C1.7 [Caenorhabditis elegans]  | 3.1     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2427  | 2498043  | gi 2498043 sp Q57568 Y104_METJA<br>HYPOTHETICAL ATP-BINDING PROTEIN MJ0104<br>pir  H64312 probable DNA helicase MJ0104 -<br>Methanococcus jannaschii gb AAB98084.1  (U67467)<br>DNA-binding protein, probably DNA helicase<br>[Methanococcus jannaschii]                      | 1.5     |
| 2430  | 7494263  | gi 7494263 pir  T18488 hypothetical protein C0825c -<br>malaria parasite (Plasmodium falciparum)<br>emb CAB11127.1  (Z98551) putative cleavage and<br>polyadenylation specificity factor protein [Plasmodium<br>falciparum]   | 2.3     |
| 2434  | 493224   | gi 493224 dbj BAA03434.1  (D14581) fatty-acid<br>desaturase [Anabaena variabilis]   | 9.1     |
| 2438  | 6755468  | gi 6755468 ref NP_036019.1  septin 3 [Mus musculus]<br>sp Q9Z1S5 SEP3_MOUSE NEURONAL-SPECIFIC<br>SEPTIN 3 gb AAD02884.1  (AF104411) neuronal-<br>specific septin 3 [Mus musculus]   | 0.59    |
| 2440  | 9967295  | gi 9967295 dbj BAB12347.1  (AB047936) hypothetical<br>protein [Macaca fascicularis]   | 0.063   |
| 2447  | 12847975 | gi 12847975 dbj BAB27780.1  (AK011690) putative<br>[Mus musculus]   | 7E-65   |
| 2451  | 1730946  | gi 1730946 sp P50833 YPPE_BACSU<br>HYPOTHETICAL 14.5 KDA PROTEIN IN PONA-<br>COTD INTERGENIC REGION pir  B69940<br>hypothetical protein yppE - Bacillus subtilis<br>gb AAB38463.1  (L47838) putative [Bacillus subtilis]<br>emb CAB14144.1  (Z99115) yppE [Bacillus subtilis] | 9.3     |
| 2452  | 401192   | gi 401192 sp P30975 TLR2_DROME TACHYKININ-<br>LIKE PEPTIDES RECEPTOR 99D (DTKR)<br>pir  S17783 tachykinin receptor homolog DTKR - fruit<br>fly (Drosophila melanogaster) emb CAA44595.1 <br>(X62711) receptor for tachykinin-like peptides<br>[Drosophila melanogaster]       | 4.8     |
| 2453  | 14768202 | gi 14768202 ref XP_018137.2  L1 cell adhesion<br>molecule precursor [Homo sapiens]  | 0.11    |

**Table 3B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2457  | 141028   | gi 141028 sp P04540 NU5M_TRYBB NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 5<br>pir  QQUTC5 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 5 - Trypanosoma brucei mitochondrion<br>gb AAB59225.1  (M14820) NADH dehydrogenase subunit 5 [Trypanosoma brucei] emb CAB57807.1  (X01094) unidentified reading frame 10 [Trypanosoma brucei]   | 3.6     |
| 2461  | 7499039  | gi 7499039 pir  T20867 hypothetical protein F13H10.5 - Caenorhabditis elegans emb CAA92956.1  (Z68748) contains similarity to Pfam domain: PF01663 (Type I phosphodiesterase / nucleotide pyrophosphatase), Score=512.3, E-value=1.1e-150, N=1 [Caenorhabditis elegans] emb CAA15977.1  (AL021176) contains similarity to Pfam domain: PF01663 (Type I phosphodiesterase / nucleotide pyrophosphatase), Score=512.3, E-value=1.1e-150, N=1 [Caenorhabditis elegans] | 9.7     |
| 2462  | 3023956  | gi 3023956 sp Q00808 HET1_PODAN VEGETATIBLE INCOMPATIBILITY PROTEIN HET-E-1 pir  T18521 beta transducin-like protein - Podospora anserina gb AAA85775.1  (L28125) beta transducin-like protein [Podospora anserina]   | 8.7     |
| 2463  | 14972564 | gi 14972564 gb AAK75201.1  (AE007410) glutamine amidotransferase, class I [Streptococcus pneumoniae]  | 0.4     |
| 2470  | 13928966 | gi 13928966 ref NP_113882.1  heat shock factor 2 [Rattus norvegicus] gb AAD51329.1 AF172640_1 (AF172640) heat shock factor 2 [Rattus norvegicus]  | 6E-14   |
| 2473  | 4521320  | gi 4521320 dbj BAA11580.1  (D82816) product is unknown [Gallus gallus]  | 0.29    |
| 2475  | 7507534  | gi 7507534 pir  T24738 hypothetical protein T09E11.2 - Caenorhabditis elegans emb CAB03532.1  (Z81147) Similarity to zinc finger proteins, contains similarity to Pfam domain: PF00104 (Ligand-binding domain of nuclear hormone receptor), Score=14.1, E-value=0.00047, N=1; PF00105 (Zinc finger, C4 type (two domains)), Score=42.6, E-value=5.5e-12, N>   | 6.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2478  | 927030   | gi 927030 gb AAA73871.1  (L13287) kcrB4 gene product [Escherichia coli]   | 3.5     |
| 2481  | 6724309  | gi 6724309 gb AAF26929.1  (AF079967) NADH dehydrogenase subunit 4 [Phytomonas serpens]  | 7.9     |
| 2482  | 6319700  | gi 6319700 ref NP_009783.1  Ybr224wp [Saccharomyces cerevisiae] sp P38320 YB74_YEAST HYPOTHETICAL 19.3 KDA PROTEIN IN FAT2-MCX1 INTERGENIC REGION PRECURSOR pir  S46100 probable membrane protein YBR224w - yeast (Saccharomyces cerevisiae) emb CAA85187.1  (Z36092) ORF YBR224w [Saccharomyces cerevisiae]          | 2.4     |
| 2496  | 7503173  | gi 7503173 pir  T31884 hypothetical protein F41E6.14 - Caenorhabditis elegans gb AAB65962.1  (AF016448) weak similarity to several acyltransferases [Caenorhabditis elegans]  | 9.7     |
| 2498  | 11352621 | gi 11352621 pir  E83187 tetrahydrodipicolinate succinylase PA3666 [imported] - Pseudomonas aeruginosa (strain PAO1) dbj BAA75911.1  (AB024601) tetrahydrodipicolinate N-succinyletransferase [Pseudomonas aeruginosa] gb AAG07054.1 AE004786_6 (AE004786) tetrahydrodipicolinate succinylase [Pseudomonas aeruginosa] | 3.3     |
| 2500  | 7662214  | gi 7662214 ref NP_055604.1  KIAA0628 gene product [Homo sapiens] ref XP_005044.3  KIAA0628 gene product [Homo sapiens] dbj BAA31603.1  (AB014528) KIAA0628 protein [Homo sapiens]   | 3       |
| 2506  | 7508531  | gi 7508531 pir  T25325 hypothetical protein T26H2.7 - Caenorhabditis elegans emb CAB04848.1  (Z82055) contains similarity to Pfam domain: PF01757 (Domain of unknown function), Score=543.5, E-value=4.6e-160, N=1 [Caenorhabditis elegans]   | 9.2     |
| 2507  | 14730527 | gi 14730527 ref XP_051896.1  phospholipase A2, group IVA (cytosolic, calcium-dependent) [Homo sapiens] ref XP_051897.1  phospholipase A2, group IVA (cytosolic, calcium-dependent) [Homo sapiens]   | 5E-26   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2510  | 138394   | gi 138394 sp P27330 VHEL_LSV PROBABLE HELICASE (ORF 2) emb CAA33398.1  (X15343) 25kD protein [Lily symptomless virus]   | 10      |
| 2519  | 13938116 | gi 13938116 gb AAH07173.1 AAH07173 (BC007173) Unknown (protein for IMAGE:3493127) [Mus musculus]  | 8E-22   |
| 2520  | 7486371  | gi 7486371 pir T00661 hypothetical protein F3I6.24 - Arabidopsis thaliana gb AAC00591.1  (AC002396) Unknown protein [Arabidopsis thaliana]  | 0.16    |
| 2523  | 11358141 | gi 11358141 pir T48198 hypothetical protein T20L15.40 - Arabidopsis thaliana emb CAB82747.1  (AL162351) putative protein [Arabidopsis thaliana]   | 9.1     |
| 2526  | 14485227 | gi 14485227 gb AAK62977.1 AF384372_3 (AF384372) surface antigen [Hepatitis B virus]   | 2.6     |
| 2527  | 6594617  | gi 6594617 gb AAF18559.1 U42380_1 (U42380) aminopeptidase [Aplysia californica]   | 5.3     |
| 2529  | 14193306 | gi 14193306 gb AAK55890.1 AF267211_2 (AF267211) ATP synthase gamma subunit [Candidatus Carsonella ruddii]   | 3.5     |
| 2531  | 3319680  | gi 3319680 emb CAA76809.1  (Y17614) N8 protein [Medicago truncatula]  | 1.5     |
| 2536  | 13811987 | gi 13811987 ref NP_113116.1  DNA repair helicase component of transcription factor b [Guillardia theta] gb AAK39689.1 AF083031_46 (AF083031) DNA repair helicase component of transcription factor b [Guillardia theta] | 4.8     |
| 2537  | 3122601  | gi 3122601 sp P93107 PF20_CHLRE FLAGELLAR WD-REPEAT PROTEIN PF20 pir T08180 PF20 protein, microtubule-associated - Chlamydomonas reinhardtii gb AAB41727.1  (U78547) PF20 [Chlamydomonas reinhardtii]                   | 1.1     |
| 2540  | 7460001  | gi 7460001 pir G71079 hypothetical protein PH0903 - Pyrococcus horikoshii dbj BAA29997.1  (AP000004) 141aa long hypothetical protein [Pyrococcus horikoshii]  | 6.3     |
| 2541  | 12330702 | gi 12330702 gb AAG52889.1 AF333769_1 (AF333769) cell recognition molecule CASPR3 [Homo sapiens]   | 2E-28   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2547  | 6754652  | gi 6754652 ref NP_034904.1  methyl-CpG binding domain protein 4 [Mus musculus] gb AAC68878.1  (AF072249) methyl-CpG binding protein MBD4 [Mus musculus] gb AAD56595.1 AF120996_1 (AF120996) methyl-CpG binding protein 4 [Mus musculus domesticus]   | 7.1     |
| 2548  | 12655370 | gi 12655370 emb CAB57344.3  (AJ243708) prickly pk isoform [Drosophila melanogaster]  | 7.7     |
| 2551  | 12853631 | gi 12853631 dbj BAB29800.1  (AK015333) putative [Mus musculus]   | 0.61    |
| 2554  | 11466216 | gi 11466216 ref NP_066539.1  haem lyase [Naegleria gruberi] gb AAG17817.1 AF288092_42 (AF288092) haem lyase [Naegleria gruberi]  | 1.5     |
| 2557  | 7321597  | gi 7321597 gb AAA32099.2  (L28677) unknown [Tetrahymena pyriformis]  | 3       |
| 2560  | 7304202  | gi 7304202 gb AAF59238.1  (AE003840) CG1602 gene product [Drosophila melanogaster]   | 1.6     |
| 2564  | 336831   | gi 336831 gb AAB02281.1  (M57910) NADH dehydrogenase subunit 2 [Drosophila melanogaster]   | 5.5     |
| 2566  | 7515231  | gi 7515231 pir T13518 hypothetical protein 29 - Bacillus phage phi-105 dbj BAA36635.1  (AB016282) ORF29 [bacteriophage phi-105]  | 7.7     |
| 2568  | 12847263 | gi 12847263 dbj BAB27500.1  (AK011258) putative [Mus musculus]   | 6.6     |
| 2569  | 9964395  | gi 9964395 ref NP_064863.1  AMV081 [Amsacta moorei entomopoxvirus] gb AAG02787.1 AF250284_81 (AF250284) AMV081 [Amsacta moorei entomopoxvirus]   | 2.4     |
| 2573  | 12060849 | gi 12060849 gb AAG48266.1 AF308299_1 (AF308299) serologically defined breast cancer antigen NY-BR-85 [Homo sapiens]  | 0.0006  |
| 2575  | 9633381  | gi 9633381 ref NP_050485.1  D5L protein [variola minor virus] pir H72173 D5L protein - variola minor virus (strain Garcia-1966) gb AAA69395.1  (U18339) D4L [Variola virus] emb CAA50966.1  (X72086) ORF15L; B16L in citation [3] [Variola virus] emb CAB54786.1  (Y16780) D5L protein [variola minor virus] | 7.5     |
| 2576  | 7407131  | gi 7407131 gb AAF61923.1  (AF228524) SanE [Streptomyces ansochromogenes]   | 0.53    |
| 2577  | 14760789 | gi 14760789 ref XP_044332.1  piwi (Drosophila)-like 1 [Homo sapiens]   | 9E-42   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2584  | 2764800  | gi 2764800 emb CAA54153.1  (X76738) 12s globulin [Avena sativa]  | 1.4     |
| 2585  | 12860337 | gi 12860337 dbj BAB31923.1  (AK019929) putative [Mus musculus]   | 5.3     |
| 2586  | 7768484  | gi 7768484 emb CAB90775.1  (AL355632) putative mitochondrial carrier protein [Schizosaccharomyces pombe]   | 2.8     |
| 2587  | 12620098 | gi 12620098 gb AAG60558.1  (AF250768) BioA-like protein [uncultured bacterium pCosFS1]   | 8.4     |
| 2591  | 2281181  | gi 2281181 gb AAB66275.1  (U58587) maturase [Lagoecia cuminoides]  | 3.8     |
| 2595  | 6573736  | gi 6573736 gb AAF17656.1 AC009398_5 (AC009398) F20B24.10 [Arabidopsis thaliana]  | 6.7     |
| 2596  | 31155    | gi 31155 emb CAA24999.1  (X00176) preproenkephalin part 1 [Homo sapiens]   | 9.5     |
| 2600  | 11278033 | gi 11278033 pir C81832 transferrin-binding protein A NMA2024 [imported] - Neisseria meningitidis (group A strain Z2491) gb AAC13726.1  (AF058689) transferrin binding protein A precursor [Neisseria meningitidis] emb CAB85243.1  (AL162757) transferrin-binding protein A [Neisseria meningitidis Z2491] | 5       |
| 2613  | 7493138  | gi 7493138 pir T37964 probable ubiquitin ligase - fission yeast (Schizosaccharomyces pombe) emb CAB16714.1  (Z99531) putative ubiquitin ligase [Schizosaccharomyces pombe]   | 0.21    |
| 2615  | 14625275 | gi 14625275 gb AAA80360.2  (U39644) Hypothetical protein T10E10.4 [Caenorhabditis elegans]   | 5.3     |
| 2617  | 7515479  | gi 7515479 pir S72298 hypothetical protein 91 - Plasmodium falciparum plastid emb CAA64588.1  (X95276) ORF91 [Plasmodium falciparum]   | 0.66    |
| 2619  | 14091855 | gi 14091855 gb AAK53858.1 AC016781_12 (AC016781) Hypothetical protein [Oryza sativa]   | 0.69    |
| 2621  | 8393165  | gi 8393165 ref NP_035661.2  transiently-expressed axonal glycoprotein [Mus musculus]   | 0.11    |
| 2624  | 6754242  | gi 6754242 ref NP_034603.1  histidine rich calcium binding protein [Mus musculus] gb AAD55250.1 AF158597_1 (AF158597) histidine-rich Ca <sup>2+</sup> binding protein [Mus musculus]   | 8.1     |
| 2625  | 7959261  | gi 7959261 dbj BAA96024.1  (AB040933) KIAA1500 protein [Homo sapiens]  | 1E-36   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2626  | 5508828  | gi 5508828 gb AAD43995.1  (U59485) AttU [Agrobacterium tumefaciens]   | 0.27    |
| 2627  | 3643603  | gi 3643603 gb AAC42250.1  (AC005395) unknown protein [Arabidopsis thaliana]   | 4.7     |
| 2630  | 5453906  | gi 5453906 ref NP_006310.1  CDP-diacylglycerol--inositol 3-phosphatidyltransferase (phosphatidylinositol synthase) [Homo sapiens] ref XP_008065.1  CDP-diacylglycerol--inositol 3-phosphatidyltransferase (phosphatidylinositol synthase) [Homo sapiens] ref XP_043951.1  CDP-diacylglycerol--inositol 3-phosphatidyltransferase (phosphatidylinositol synthase) [Homo sapiens] sp O14735 PIS_HUMAN CDP-DIACYLGLYCEROL--INOSITOL 3-PHOSPHATIDYLTRANSFERASE (PHOSPHATIDYLINOSITOL SYNTHASE) (PTDINS SYNTHASE) (PI SYNTHASE) gb AAB94860.1  (AF014807) phosphatidylinositol synthase [Homo sapiens] gb AAH01444.1 AAH01444 (BC001444) CDP-diacylglycerol--inositol 3-phosphatidyltransferase (phosphatidylinositol synthase) [Homo sapiens] | 7       |
| 2631  | 7515479  | gi 7515479 pir  S72298 hypothetical protein 91 - Plasmodium falciparum plastid emb CAA64588.1  (X95276) ORF91 [Plasmodium falciparum]   | 0.71    |
| 2636  | 11467075 | gi 11467075 ref NP_042551.1  ribosomal protein L5 [Acanthamoeba castellanii] sp P46764 RM05_ACACA MITOCHONDRIAL 60S RIBOSOMAL PROTEIN L5 pir  S53852 ribosomal protein L5 - Acanthamoeba castellanii mitochondrion gb AAD11844.1  (U12386) ribosomal protein L5 [Acanthamoeba castellanii]  | 2.3     |
| 2639  | 1352549  | gi 1352549 sp P48906 NU2M_HANWI NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 2  | 4.1     |
| 2642  | 13111580 | gi 13111580 gb AAK12385.1 AF296091_1 (AF296091) polyprotein [Porcine teschovirus]   | 2.4     |
| 2646  | 1314734  | gi 1314734 gb AAA99804.1  (U54641) 220 kDa silk protein [Chironomus thummi]   | 1.9     |
| 2651  | 7001374  | gi 7001374 gb AAF34871.1 AF112184_1 (AF112184) serine/threonine kinase NKIATRE alpha [Rattus norvegicus]  | 2.9     |
| 2653  | 2687582  | gi 2687582 gb AAB88853.1  (AF032875) protein kinase [Mus musculus]  | 7.2     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2654  | 10636263 | gi 10636263 emb CAC10528.1  (AJ293919) putative inositol 1,4,5-trisphosphate receptor [Caenorhabditis briggsae]  | 5       |
| 2663  | 5902891  | gi 5902891 dbj BAA84474.1  (AB032367) type I polyketide synthase AVES 1 [Streptomyces avermitilis]   | 0.087   |
| 2664  | 4567214  | gi 4567214 gb AAD23629.1 AC007113_2 (AC007113) putative villin [Arabidopsis thaliana]  | 6.4     |
| 2665  | 2326816  | gi 2326816 emb CAA99382.1  (Z75081) ORF YOR172w [Saccharomyces cerevisiae]   | 0.46    |
| 2667  | 14285987 | gi 14285987 sp O83933 Y967_TREPA<br>HYPOTHETICAL PROTEIN TP0967 pir  B71260<br>hypothetical protein TP0967 - syphilis spirochete<br>gb AAC65925.1  (AE001264) T. pallidum predicted<br>coding region TP0967 [Treponema pallidum] | 6.9     |
| 2669  | 6678247  | gi 6678247 ref NP_033358.1  transcription factor 7-like 1 [Mus musculus] emb CAA11070.1  (AJ223069) TCF-3 protein [Mus musculus]   | 3.4     |
| 2671  | 7491697  | gi 7491697 pir T40527 hypothetical protein SPBC530.11c - fission yeast (Schizosaccharomyces pombe) emb CAA19177.1  (AL023634) putative transcriptional regulator [Schizosaccharomyces pombe]                                     | 4.9     |
| 2673  | 5459308  | gi 5459308 emb CAB50693.1  (AJ238951) CE9 protein [Canis familiaris]   | 8.8     |
| 2675  | 7959261  | gi 7959261 dbj BAA96024.1  (AB040933) KIAA1500 protein [Homo sapiens]  | 1E-36   |
| 2680  | 14520279 | gi 14520279 ref NP_125754.1  hypothetical protein [Pyrococcus abyssi] pir  B75192 hypothetical protein PAB2304 - Pyrococcus abyssi (strain Orsay) emb CAB48985.1  (AJ248283) hypothetical protein [Pyrococcus abyssi]            | 6.7     |
| 2681  | 12654531 | gi 12654531 gb AAH01098.1 AAH01098 (BC001098) Unknown (protein for IMAGE:3508043) [Homo sapiens]   | 2.8     |
| 2682  | 12657687 | gi 12657687 gb AAK01000.1  (AF178873) NADH dehydrogenase subunit 1 [Archaeosax parthenias]   | 0.68    |







| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2730  | 11466216 | gi 11466216 ref NP_066539.1  haem lyase [Naegleria gruberi] gb AAG17817.1 AF288092_42 (AF288092) haem lyase [Naegleria gruberi]   | 1.4     |
| 2734  | 14701844 | gi 14701844 gb AAK72251.1  (AF378136) MB2 [Plasmodium falciparum]   | 3.3     |
| 2739  | 7486489  | gi 7486489 pir T00671 hypothetical protein F6E13.4 - Arabidopsis thaliana gb AAC23400.1  (AC004005) putative methyl chloride transferase [Arabidopsis thaliana] gb AAK73255.1  (AY044314) putative methyl chloride transferase [Arabidopsis thaliana]   | 8.1     |
| 2747  | 7509946  | gi 7509946 pir T26972 hypothetical protein Y47H9C.4 - Caenorhabditis elegans emb CAA21739.1  (AL032657) contains similarity to Pfam domain: PF00008 (EGF-like domain), Score=76.2, E-value=2.2e-19, N=17~cDNA EST yk20a5.3 comes from this gene~cDNA EST yk20a5.5 comes from this gene~cDNA EST yk299a12.3 comes from this gene~cDNA EST yk467g8.3 comes > gb AAG60061.1 AF332568_1 (AF332568) CED-1 [Caenorhabditis elegans] | 1.6     |
| 2749  | 8569100  | gi 8569100 gb AAF76445.1 AC015445_12 (AC015445) Contains Ribosomal S17 PF 00366 and DLH PF 01738 domains. [Arabidopsis thaliana]  | 9.5     |
| 2750  | 7293625  | gi 7293625 gb AAF48997.1  (AE003512) CG14223 gene product [Drosophila melanogaster]   | 2.9     |
| 2751  | 5454050  | gi 5454050 ref NP_006369.1  sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 4D; sema domain, immunoglobulin domain (Ig), transmembrane domain (TM) and short cytoplasmic domain, 4D [Homo sapiens] sp Q92854 SM4D_HUMAN SEMAPHORIN 4D PRECURSOR (LEUKOCYTE ACTIVATION ANTIGEN CD100) (BB18) (A8) (GR3) gb AAC50810.1  (U60800) semaphorin [Homo sapiens]        | 9       |
| 2761  | 9964076  | gi 9964076 gb AAG09812.1 AF275943_1 (AF275943) avermectin polyketide synthase [Streptomyces avermitilis]  | 2.9     |
| 2762  | 4234794  | gi 4234794 gb AAD12962.1  (AF078135) unknown [Leptospira borgpetersenii]  | 1.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2764  | 11131078 | gi 11131078 sp O15072 ATS3_HUMAN ADAM-TS 3 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 3) (ADAMTS-3) (ADAM-TS3) dbj BAA20821.1  (AB002364) KIAA0366 [Homo sapiens]  | 4E-17   |
| 2765  | 6449069  | gi 6449069 gb AAF08806.1 AF192748_1 (AF192748) synapsin Ib [Lampetra fluviatilis]   | 0.008   |
| 2769  | 7300358  | gi 7300358 gb AAF55517.1  (AE003721) CG8045 gene product [alt 2] [Drosophila melanogaster] gb AAB34837.2  (S78747) RK2 [Drosophila sp.]   | 3       |
| 2772  | 14731064 | gi 14731064 ref XP_036165.1  40679 [Homo sapiens]   | 6E-20   |
| 2774  | 4927134  | gi 4927134 gb AAD33018.1 AF131999_1 (AF131999) putative erythrocyte binding protein EBL-1 [Plasmodium falciparum]   | 8.6     |
| 2775  | 11994465 | gi 11994465 dbj BAB02467.1  (AB025624) contains similarity to late embryogenesis abundant protein~gene_id:MLD14.16 [Arabidopsis thaliana]   | 7.5     |
| 2776  | 12852706 | gi 12852706 dbj BAB29508.1  (AK014697) putative [Mus musculus]  | 1       |
| 2777  | 9972373  | gi 9972373 gb AAG10623.1 AC022521_1 (AC022521) Unknown protein [Arabidopsis thaliana]   | 3.2     |
| 2779  | 12838769 | gi 12838769 dbj BAB24323.1  (AK005931) putative [Mus musculus]  | 7.6     |
| 2780  | 14743085 | gi 14743085 ref XP_050026.1  similar to immunoglobulin superfamily containing leucine-rich repeat (H. sapiens) [Homo sapiens]   | 3.4     |
| 2781  | 4581140  | gi 4581140 gb AAD24624.1 AC006919_4 (AC006919) unknown protein [Arabidopsis thaliana]   | 2.8     |
| 2792  | 7661684  | gi 7661684 ref NP_056277.1  DKFZP586L0724 protein [Homo sapiens] ref XP_038194.1  DKFZP586L0724 protein [Homo sapiens] ref XP_038195.1  19734 [Homo sapiens] pir T14789 hypothetical protein DKFZp586L0724.1 - human emb CAB53709.1  (AL110271) hypothetical protein [Homo sapiens] gb AAH01726.1 AAH01726 (BC001726) Similar to DKFZP586L0724 protein [Homo sapiens] | 7       |
| 2793  | 13624635 | gi 13624635 emb CAA10856.2  (AJ222584) maturase-like protein [Euglena viridis]  | 1.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 2800  | 9622888  | gi 9622888 gb AAF89968.1 AF200532_1 (AF200532) cellulose synthase-8 [Zea mays]   | 3.8     |
| 2803  | 7499161  | gi 7499161 pir T25690 hypothetical protein F15A8.6 - Caenorhabditis elegans gb AAB52848.1  (U97549) strong similarity to the type-B carboxylesterase/lipase family [Caenorhabditis elegans]  | 3.1     |
| 2806  | 14746401 | gi 14746401 ref XP_031955.1  ring finger protein 27 [Homo sapiens]   | 0.3     |
| 2809  | 14731173 | gi 14731173 ref XP_017730.2  IQ motif containing GTPase activating protein 2 [Homo sapiens]  | 2E-11   |
| 2813  | 4567214  | gi 4567214 gb AAD23629.1 AC007113_2 (AC007113) putative villin [Arabidopsis thaliana]  | 3.5     |
| 2817  | 2500866  | gi 2500866 sp Q20411 SA11_CAEEL SRA-11 PROTEIN pir T22192 hypothetical protein F44F4.13 - Caenorhabditis elegans emb CAA85461.1  (Z37092) contains similarity to Pfam domain: PF02117 (C.elegans Sra family integral membrane protein), Score=675.6, E-value=8.3e-200, N=1 [Caenorhabditis elegans]        | 3.1     |
| 2818  | 15011503 | gi 15011503 gb AAK77598.1 AF396436_38 (AF396436) ymf71 [Tetrahymena thermophila]   | 5.9     |
| 2823  | 11278033 | gi 11278033 pir C81832 transferrin-binding protein A NMA2024 [imported] - Neisseria meningitidis (group A strain Z2491) gb AAC13726.1  (AF058689) transferrin binding protein A precursor [Neisseria meningitidis] emb CAB85243.1  (AL162757) transferrin-binding protein A [Neisseria meningitidis Z2491] | 5       |
| 2825  | 3913143  | gi 3913143 sp O23913 AX1B_ARATH ALTERNATIVE OXIDASE 1B PRECURSOR dbj BAA22624.1  (D89875) alternative oxidase [Arabidopsis thaliana] dbj BAB01774.1  (AB022215) alternative oxidase 1b precursor [Arabidopsis thaliana]  | 1.2     |
| 2827  | 12842679 | gi 12842679 dbj BAB25689.1  (AK008476) putative [Mus musculus]   | 7.8     |
| 2835  | 12848636 | gi 12848636 dbj BAB28031.1  (AK012100) putative [Mus musculus]   | 0.083   |
| 2839  | 7292152  | gi 7292152 gb AAF47564.1  (AE003472) Dhc62B gene product [Drosophila melanogaster]   | 4.6     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |             |
|---|----------|---|-------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE     |
| 2846  | 9628099  | gi 9628099 ref NP_042686.1  alternative tat protein [Jembrana disease virus] gb AAA64395.1  (U21603) alternative tat protein [Jembrana disease virus] prf 2116345E tat gene [Jembrana disease virus]  | 3.3         |
| 2855  | 4165313  | gi 4165313 dbj BAA37146.1  (AB022083) SOX30 protein [Homo sapiens]  | 9.2         |
| 2859  | 14388365 | gi 14388365 dbj BAB60739.1  (AB062957) hypothetical protein [Macaca fascicularis]   | 0.55        |
| 2864  | 14739019 | gi 14739019 ref XP_005626.3  deleted in bladder cancer chromosome region candidate 1 [Homo sapiens]   | 6.3         |
| 2867  | 6319950  | gi 6319950 ref NP_010031.1  Transcription regulator; Ycr106wp [Saccharomyces cerevisiae] sp P25611 YCZ6_YEAST PUTATIVE 95.7 KD TRANSCRIPTIONAL REGULATORY PROTEIN IN PAU3-AAD3 INTERGENIC REGION pir S19418 probable membrane protein YCR106w - yeast (Saccharomyces cerevisiae) emb CAA42238.1  (X59720) hypothetical protein [Saccharomyces cerevisiae] | 9.1         |
| 2870  | 14724850 | gi 14724850 ref XP_050192.1  29140 [Homo sapiens]   | 2.2         |
| 2871  | 4587097  | gi 4587097 dbj BAA76616.1  (AB019045) OMPdecarboxylase [Rhizomucor pusillus]  | 9.7         |
| 2873  | 7522108  | gi 7522108 pir T29097 pro-pol-dUTPase polyprotein - murine endogenous retrovirus ERV-L (fragment) emb CAA73251.1  (Y12713) protease; reverse transcriptase; RNaseH; integrase; dUTPase; Pro-Pol-dUTPase polyprotein [Mus musculus]  | 0.003       |
| 2875  | 7482073  | gi 7482073 pir B69010 conserved hypothetical protein MTH1078 - Methanobacterium thermoautotrophicum (strain Delta H) gb AAB85567.1  (AE000879) conserved protein [Methanothermobacter thermautotrophicus]   | 4.6         |
| 2876  | 11360401 | gi 11360401 pir T42759 Munc13-3 protein - rat   | 0.000000005 |
| 2879  | 5091521  | gi 5091521 dbj BAA78756.1  (AB023482) Hypothetical protein [Oryza sativa]   | 2.1         |
| 2881  | 13810543 | gi 13810543 dbj BAB43950.1  (AB051633) ookinete surface protein Pos28-2 [Plasmodium ovale]  | 3           |
| 2882  | 5091521  | gi 5091521 dbj BAA78756.1  (AB023482) Hypothetical protein [Oryza sativa]   | 2.1         |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2887  | 6723244  | gi 6723244 dbj BAA89640.1  (AB036666) similar to terminase large subunit of phage lambda [Wolbachia sp. wKue]   | 7.1     |
| 2889  | 7494347  | gi 7494347 pir E71625 variant-specific surface protein 1 truncated homolog PFB0020c - malaria parasite (Plasmodium falciparum) gb AAC71794.1  (AE001366) PfEMP1 fragment [Plasmodium falciparum]  | 5       |
| 2890  | 6942188  | gi 6942188 gb AAF32349.1 AF220008_1 (AF220008) coilin p80 [Danio rerio]   | 0.11    |
| 2891  | 10639397 | gi 10639397 emb CAC11399.1  (AL445063) hypothetical membrane protein [Thermoplasma acidophilum]   | 8.5     |
| 2898  | 10800417 | gi 10800417 ref NP_006759.2  BRCA1 associated protein [Homo sapiens]  | 0.98    |
| 2901  | 7488089  | gi 7488089 pir T02283 probable disease resistance protein T13D8.20 - Arabidopsis thaliana gb AAC24071.1  (AC004473) Contains similarity to TMV resistance protein N homolog gb 2245048 from A. thaliana chromosome 4 contig gb Z97342. [Arabidopsis thaliana] | 8.5     |
| 2904  | 10728394 | gi 10728394 gb AAF45654.2  (AE003421) EG:171E4.2 gene product [Drosophila melanogaster]   | 1.4     |
| 2905  | 10956333 | gi 10956333 ref NP_052782.1  pXO1-86 [Bacillus anthracis] pir F59101 hypothetical protein pXO1-86 - Bacillus anthracis virulence plasmid pXO1 gb AAD32390.1 AAD32390 (AF065404) pXO1-86 [Bacillus anthracis]  | 9.7     |
| 2906  | 4028153  | gi 4028153 gb AAC96117.1  (AF083221) putative neurotransmitter receptor [Takifugu rubripes]   | 2.8     |
| 2909  | 12836120 | gi 12836120 dbj BAB23511.1  (AK004729) putative [Mus musculus]  | 5.3     |
| 2911  | 1778844  | gi 1778844 gb AAB40929.1  (U83086) LimA [Dictyostelium discoideum]  | 1.3     |
| 2913  | 3192956  | gi 3192956 gb AAC41298.1  (AF033670) T-Box protein 4 [Gallus gallus]  | 3.1     |
| 2914  | 7506147  | gi 7506147 pir T33303 hypothetical protein R01B10.4 - Caenorhabditis elegans gb AAC17768.1  (AF068718) R01B10.4 gene product [Caenorhabditis elegans]   | 0.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2915  | 6041793  | gi 6041793 gb AAF02113.1 AC009755_6 (AC009755)<br>putative auxin-independent growth promoter<br>[Arabidopsis thaliana]  | 2.1     |
| 2916  | 5803098  | gi 5803098 ref NP_006757.1  zinc finger protein 220;<br>Monocytic leukemia zinc finger protein [Homo sapiens]<br>sp Q92794 MOZ_HUMAN MONOCYTIC<br>LEUKEMIA ZINC FINGER PROTEIN (ZINC<br>FINGER PROTEIN 220) gb AAC50662.1  (U47742)<br>monocytic leukaemia zinc finger protein [Homo sapiens] | 0.084   |
| 2919  | 10639353 | gi 10639353 emb CAC11355.1  (AL445063)<br>hypothetical membrane protein [Thermoplasma<br>acidophilum]   | 3.1     |
| 2920  | 13235586 | gi 13235586 emb CAC33776.1  (AJ301807) SclB<br>protein [Streptococcus pyogenes]   | 9.7     |
| 2925  | 7507618  | gi 7507618 pir  T33548 hypothetical protein T10D4.8 -<br>Caenorhabditis elegans   | 4.3     |
| 2928  | 7522108  | gi 7522108 pir  T29097 pro-pol-dUTPase polyprotein -<br>murine endogenous retrovirus ERV-L (fragment)<br>emb CAA73251.1  (Y12713) protease; reverse<br>transcriptase; RNaseH; integrase; dUTPase; Pro-Pol-<br>dUTPase polyprotein [Mus musculus]  | 1.2     |
| 2932  | 13542796 | gi 13542796 gb AAH05601.1 AAH05601 (BC005601)<br>Similar to RIKEN cDNA 1110061A19 gene [Mus<br>musculus]  | 6.4     |
| 2934  | 417869   | gi 417869 sp P33007 TERP_PSESP TERPREDOXIN<br>(TDX) pir  E42971 terpredoxin - Pseudomonas sp<br>gb AAA25998.1  (M91440) terpredoxin [Pseudomonas<br>sp.]  | 3.7     |
| 2938  | 7433891  | gi 7433891 pir  T00981 flavonol 3-O-glucosyltransferase<br>homolog T9J22.15 - Arabidopsis thaliana<br>gb AAC14497.1  (AC002505) putative<br>glucosyltransferase [Arabidopsis thaliana]  | 6.8     |
| 2939  | 15021546 | gi 15021546 gb AAK77823.1 AF369029_154<br>(AF369029) ORF154 [white spot syndrome virus]   | 0.25    |
| 2944  | 11466694 | gi 11466694 ref NP_039290.1  ORF370i [Marchantia<br>polymorpha] sp P12174 MATK_MARPO PROBABLE<br>INTRON MATURASE pir  A05034 hypothetical<br>protein 370i - liverwort (Marchantia polymorpha)<br>chloroplast emb CAA28076.1  (X04465) ORF370i<br>[Marchantia polymorpha]                      | 4.3     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 2945  | 7302236  | gi 7302236 gb AAF57330.1  (AE003786) CG10416 gene product [ <i>Drosophila melanogaster</i> ]  | 1.4     |
| 2950  | 2495638  | gi 2495638 sp P76511 YFDO_ECOLI HYPOTHETICAL 14.4 KDA PROTEIN IN INTC-DSDC INTERGENIC REGION pir C65009 hypothetical protein b2358 - <i>Escherichia coli</i> (strain K-12) gb AAC75417.1  (AE000324) orf, hypothetical protein [ <i>Escherichia coli</i> K12] | 4.5     |
| 2955  | 220578   | gi 220578 dbj BAA00447.1  (D00570) open reading frame (251 AA) [ <i>Mus musculus</i> ]  | 4.2     |
| 2958  | 12855573 | gi 12855573 dbj BAB30384.1  (AK016695) putative [ <i>Mus musculus</i> ]   | 0.007   |
| 2963  | 2981631  | gi 2981631 dbj BAA25253.1  (AB012223) ORF2 [ <i>Canis familiaris</i> ]  | 0.29    |
| 2966  | 7657401  | gi 7657401 ref NP_056616.1  neuropathy target esterase; Swiss cheese [ <i>Mus musculus</i> ]<br>gb AAD51700.1 AF173829_1 (AF173829) neuropathy target esterase homolog [ <i>Mus musculus</i> ]  | 1.5     |
| 2967  | 14285535 | gi 14285535 sp P71399 LSG1_HAEIN LSG LOCUS PUTATIVE PROTEIN 1   | 4.8     |
| 2973  | 14423780 | gi 14423780 sp O95013 O4F3_HUMAN OLFACTORY RECEPTOR 4F3 gb AAD05195.1  (AC004908) similar to rat olfactory receptor OR18; similar to S29710 (PID:g423702) [ <i>Homo sapiens</i> ]   | 3E-35   |
| 2975  | 14771691 | gi 14771691 ref XP_045484.1  67354 [ <i>Homo sapiens</i> ]  | 1.3     |
| 2978  | 6573738  | gi 6573738 gb AAF17658.1 AC009398_7 (AC009398) F20B24.13 [ <i>Arabidopsis thaliana</i> ]  | 8.5     |
| 2982  | 13811437 | gi 13811437 gb AAK40121.1  (AF354707) type II deodinase [ <i>Xenopus laevis</i> ]   | 2.4     |
| 2986  | 7522108  | gi 7522108 pir T29097 pro-pol-dUTPase polyprotein - murine endogenous retrovirus ERV-L (fragment) emb CAA73251.1  (Y12713) protease; reverse transcriptase; RNaseH; integrase; dUTPase; Pro-Pol-dUTPase polyprotein [ <i>Mus musculus</i> ]                   | 0.00001 |
| 2990  | 12722927 | gi 12722927 gb AAK04181.1 AE006247_3 (AE006247) UNKNOWN PROTEIN [ <i>Lactococcus lactis</i> subsp. <i>lactis</i> ]  | 1.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |            |
|---|----------|--|------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE    |
| 2994  | 11346713 | gi 11346713 pir F81302 hypothetical protein Cj1009c [imported] - Campylobacter jejuni (strain NCTC 11168) emb CAB73265.1  (AL139077) hypothetical protein Cj1009c [Campylobacter jejuni]                       | 4.1        |
| 2995  | 7321945  | gi 7321945 gb AAC60504.2  (S68356) action potential broadening potassium channel [Aplysia sp.]   | 4.2        |
| 3003  | 11360394 | gi 11360394 pir T42731 atrophin-1 related protein - rat gb AAA98970.1  (U44091) atrophin-1 related protein [Rattus norvegicus]   | 7.6        |
| 3005  | 10765337 | gi 10765337 gb AAG22997.1  (AF188579) glycoprotein [Bovine respiratory syncytial virus]  | 1.9        |
| 3006  | 5803252  | gi 5803252 dbj BAA83562.1  (AP000399) hypothetical protein [Oryza sativa]  | 0.046      |
| 3007  | 7662688  | gi 7662688 gb AAF66138.1  (L00016) urf4 [Homo sapiens]   | 1.7        |
| 3013  | 14150037 | gi 14150037 ref NP_115666.1  hypothetical protein DKFZp761C121 [Homo sapiens] ref XP_027894.1  hypothetical protein DKFZp761C121 [Homo sapiens] emb CAB66495.1  (AL136560) hypothetical protein [Homo sapiens] | 0.00000001 |
| 3014  | 7243706  | gi 7243706 gb AAF43421.1 AF233291_1 (AF233291) epsin-like protein [Drosophila melanogaster]  | 6.5        |
| 3019  | 7293274  | gi 7293274 gb AAF48655.1  (AE003503) CG9644 gene product [Drosophila melanogaster]   | 0.47       |
| 3025  | 11414881 | gi 11414881 dbj BAB18568.1  (AB028173) HCCA2 [Homo sapiens]  | 8.6        |
| 3026  | 11359423 | gi 11359423 pir T48729 hypothetical protein 8D4.30 [imported] - Neurospora crassa emb CAB88545.1  (AL353819) conserved hypothetical protein [Neurospora crassa]  | 0.66       |
| 3028  | 2118405  | gi 2118405 pir I51018 cobra venom factor precursor - monocled cobra gb AAA68989.1  (U09969) cobra venom factor precursor [Naja naja]   | 3.1        |
| 3029  | 2739145  | gi 2739145 gb AAC98522.1  (AF030306) envelope protein; ORF4 [Porcine reproductive and respiratory syndrome virus]  | 4.3        |
| 3030  | 13549158 | gi 13549158 gb AAK29672.1 AF353095_1 (AF353095) protein synthesis initiation factor eIF2 beta [Arabidopsis thaliana]   | 6.3        |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |             |
|---|----------|--|-------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE     |
| 3034  | 14753542 | gi 14753542 ref XP_046011.1  53288 [Homo sapiens]  | 0.000000006 |
| 3042  | 3150471  | gi 3150471 gb AAC16989.1  (AF067211) Hypothetical protein B0205.2 [Caenorhabditis elegans]   | 0.56        |
| 3044  | 14734012 | gi 14734012 ref XP_051005.1  KIAA1297 protein [Homo sapiens]   | 0.16        |
| 3047  | 7493994  | gi 7493994 pir JC6564 cellobiose oxidase (EC 1.1.3.25) precursor - white-rot fungus (Trametes versicolor)  | 6.1         |
| 3056  | 114351   | gi 114351 sp P08314 ATI2_HSV1F ALPHA TRANS-INDUCING FACTOR 77 KD PROTEIN pir TNBE77 77K alpha trans-inducing protein - human herpesvirus 1 (strain F) gb AAA45768.1  (M15621) alpha trans-inducing factor 77kb [human herpesvirus 1] | 7           |
| 3069  | 6562755  | gi 6562755 emb CAB62894.1  (AL035475) possible ribosomal protein [Plasmodium falciparum]   | 6.4         |
| 3071  | 804764   | gi 804764 gb AAA65999.1  (M27826) neutral protease large subunit [Homo sapiens]  | 0.00003     |
| 3079  | 14768311 | gi 14768311 ref XP_048396.1  methyl CpG binding protein 2 [Homo sapiens]   | 0.65        |
| 3080  | 11994604 | gi 11994604 dbj BAB02658.1  (AP002062) gene_id:T22B15.11~unknown protein [Arabidopsis thaliana]  | 5           |
| 3083  | 7302673  | gi 7302673 gb AAF57753.1  (AE003800) stau gene product [alt 2] [Drosophila melanogaster]   | 9.2         |
| 3085  | 7494170  | gi 7494170 pir D71613 GAF domain protein (cyclic nt signal transduct.) PFB0510w - malaria parasite (Plasmodium falciparum) gb AAC71891.1  (AE001399) GAF domain protein (cyclic nt signal transduct.) [Plasmodium falciparum]        | 8.1         |
| 3087  | 14590168 | gi 14590168 ref NP_142233.1  hypothetical protein [Pyrococcus horikoshii] pir F71247 hypothetical protein PH0237 - Pyrococcus horikoshii dbj BAA29309.1  (AP000001) 230aa long hypothetical protein [Pyrococcus horikoshii]          | 2.3         |
| 3097  | 14326099 | gi 14326099 gb AAK60138.1 AF365405_1 (AF365405) ribosomal protein S14 [Schizosaccharomyces pombe]  | 3           |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3098  | 2499244  | gi 2499244 sp Q35140 NU2M_NEUCR NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 2<br>pir A25096 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 2 - Neurospora crassa mitochondrion<br>emb CAA27418.1  (X03793) put. URF-2 like protein (aa 1-583) [Neurospora crassa]  | 8.1     |
| 3101  | 113668   | gi 113668 sp P23961 ALUC_HUMAN !!!! ALU CLASS C WARNING ENTRY !!!!  | 6.5     |
| 3105  | 12721131 | gi 12721131 gb AAK02908.1  (AE006121) unknown [Pasteurella multocida]   | 9.2     |
| 3107  | 12621134 | gi 12621134 ref NP_075244.1  MEGF6 [Rattus norvegicus] pir T13954 MEGF6 protein - rat<br>dbj BAA32462.1  (AB011532) MEGF6 [Rattus norvegicus]   | 2.1     |
| 3108  | 1346666  | gi 1346666 sp P48305 NB5M_BOVIN NADH-UBIQUINONE OXIDOREDUCTASE B15 SUBUNIT (COMPLEX I-B15) (CI-B15) pir S28237 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain B15 - bovine<br>emb CAA46107.1  (X64898) B15 subunit of the NADH: ubiquinone oxidoreductase complex [Bos taurus]  | 0.47    |
| 3111  | 462022   | gi 462022 sp P33948 ERD2_PLAFA ER LUMEN PROTEIN RETAINING RECEPTOR pir S39609 ERD2 protein - malaria parasite (Plasmodium falciparum) emb CAA81128.1  (Z26043) ERD2 [Plasmodium falciparum] emb CAA52861.1  (X74869) PFERD2 [Plasmodium falciparum]   | 0.95    |
| 3114  | 12831427 | gi 12831427 gb AAK02082.1  (AY014401) site-specific recombinase IntIA [Listonella pelagia]  | 8.3     |
| 3117  | 7657530  | gi 7657530 ref NP_055248.1  rhabdoid tumor deletion region protein 1 [Homo sapiens] ref XP_009866.1  rhabdoid tumor deletion region protein 1 [Homo sapiens] ref XP_037053.1  rhabdoid tumor deletion region protein 1 [Homo sapiens]<br>gb AAF02484.1 AF133587_1 (AF133587) rhabdoid tumor deletion region protein 1 [Homo sapiens]<br>gb AAH08986.1 AAH08986 (BC008986) rhabdoid tumor deletion region protein 1 [Homo sapiens] | 7.8     |
| 3123  | 12083527 | gi 12083527 gb AAG48836.1 AC084218_6 (AC084218) similar to Arabidopsis thaliana DNA-directed RNA polymerase (EC 2.7.7.6) II largest chain (JDMU1) [Oryza sativa]  | 6.9     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3126  | 2565196  | gi 2565196 gb AAB81938.1  (AF000381) non-functional folate binding protein [Homo sapiens]  | 8.8     |
| 3132  | 8923808  | gi 8923808 ref NP_060941.1  uncharacterized hypothalamus protein HT010 [Homo sapiens]<br>gb AAF67649.1 AF220184_1 (AF220184) uncharacterized hypothalamus protein HT010 [Homo sapiens]                                   | 7E-13   |
| 3138  | 14755072 | gi 14755072 ref XP_048449.1  hypothetical protein XP_048449 [Homo sapiens]   | 9.5     |
| 3141  | 1085507  | gi 1085507 pir S52306 zinc finger protein 10 - mouse emb CAA85283.1  (Z36270) GC Binding Protein - 23b [Mus musculus]  | 6.7     |
| 3142  | 4417278  | gi 4417278 gb AAD20403.1  (AC007019) unknown protein [Arabidopsis thaliana]  | 2.8     |
| 3148  | 12084884 | gi 12084884 ref NP_073349.1  UL54 post-translational gene regulation protein [Meleagrid herpesvirus 1]<br>gb AAG45793.1 AF291866_60 (AF291866) UL54 post-translational gene regulation protein [Meleagrid herpesvirus 1] | 8.2     |
| 3151  | 13122204 | gi 13122204 emb CAB89584.2  (AL354512) possible non-canonical ubiquitin conjugating enzyme 1 [Leishmania major]  | 0.65    |
| 3153  | 418745   | gi 418745 pir S34959 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Crithidia oncopelti mitochondrion emb CAA39491.1  (X56015) NADH dehydrogenase subunit 4 [Crithidia oncopelti]                                | 1       |
| 3157  | 6015766  | gi 6015766 emb CAB57593.1  (Y18930) hypothetical protein [Sulfolobus solfataricus]   | 7.7     |
| 3162  | 6983867  | gi 6983867 dbj BAA90802.1  (AP001168) Similar to putative salt-inducible protein (AC006248) [Oryza sativa]   | 2.8     |
| 3163  | 11467948 | gi 11467948 sp O65404 ER11_ARATH SQUALENE MONOOXYGENASE 1,1 (SQUALENE EPOXIDASE 1,1) (SE 1,1) dbj BAB08406.1  (AB016883) squalene monooxygenase [Arabidopsis thaliana]   | 6.1     |
| 3167  | 3461813  | gi 3461813 gb AAC32907.1  (AC004138) putative sucrose-proton symporter [Arabidopsis thaliana]<br>emb CAB92307.1  (AJ289165) sucrose transporter [Arabidopsis thaliana]   | 4.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3168  | 6753576  | gi 6753576 ref NP_034128.1  cytochrome P450, 2b10, phenobarbital inducible, type b [Mus musculus]<br>sp P12791 CPBA_MOUSE CYTOCHROME P450 2B10 (CYPIIB10) (TESTOSTERONE 16-ALPHA HYDROXYLASE) (P450-16-ALPHA) (CLONE PF3/46) pir B31047 testosterone 16alpha-hydroxylase (EC 1.14.14.-) cytochrome P450 2B10 - mouse gb AAA40425.1  (M21856) testosterone 16-alpha-hydroxylase [Mus musculus] | 7.6     |
| 3174  | 585811   | gi 585811 sp Q08517 REFR_SPVKA RIFAMPICIN RESISTANCE PROTEIN (62 KD PROTEIN)<br>gb AAA16176.1  (L22012) ORF H1L [Swinepox virus]  | 6.9     |
| 3176  | 14714688 | gi 14714688 gb AAH10485.1 AAH10485 (BC010485) Unknown (protein for MGC:7224) [Mus musculus]   | 2.1     |
| 3178  | 10047191 | gi 10047191 dbj BAB13389.1  (AB046783) KIAA1563 protein [Homo sapiens]  | 4E-26   |
| 3180  | 6324246  | gi 6324246 ref NP_014316.1  Ynl083wp [Saccharomyces cerevisiae] pir S57539 probable membrane protein YNL083w - yeast (Saccharomyces cerevisiae) emb CAA61427.1  (X89016) ORF N2312 [Saccharomyces cerevisiae] emb CAA95958.1  (Z71359) ORF YNL083w [Saccharomyces cerevisiae]   | 0.24    |
| 3184  | 7494290  | gi 7494290 pir C71618 hypothetical protein PFB0315w malaria parasite (Plasmodium falciparum)<br>gb AAC71852.1  (AE001386) hypothetical protein [Plasmodium falciparum]  | 0.084   |
| 3185  | 6754948  | gi 6754948 ref NP_036089.1  origin recognition complex, subunit 5 homolog (S. cerevisiae); mouse origin recognition complex 5 [Mus musculus]<br>sp Q9WUV0 ORC5_MOUSE ORIGIN RECOGNITION COMPLEX SUBUNIT 5 emb CAB43767.1  (AJ007360) ORC5-related protein [Mus musculus] gb AAH06927.1 AAH06927 (BC006927) origin recognition complex, subunit 5 homolog (S. cerevisiae) [Mus musculus]       | 8.5     |
| 3199  | 7295489  | gi 7295489 gb AAF50803.1  (AE003567) CG10671 gene product [Drosophila melanogaster]   | 4.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3203  | 14741894 | gi 14741894 ref XP_049656.1  hypothetical protein XP_049656 [Homo sapiens]   | 4       |
| 3208  | 14520989 | gi 14520989 ref NP_126464.1  hypothetical protein [Pyrococcus abyssi] pir F75122 hypothetical protein PAB1844 - Pyrococcus abyssi (strain Orsay) emb CAB49695.1  (AJ248285) hypothetical protein [Pyrococcus abyssi]                           | 4.1     |
| 3210  | 9911016  | gi 9911016 sp P76543 YFFL_ECOLI HYPOTHETICAL 25.1 KDA PROTEIN IN EUTB-EUTH INTERGENIC REGION pir B65019 hypothetical protein b2443 - Escherichia coli (strain K-12) gb AAC75496.1  (AE000331) orf, hypothetical protein [Escherichia coli K12] | 7.9     |
| 3211  | 9626990  | gi 9626990 ref NP_056868.1  No definition line found gb AAB92648.1  (AF035403) No definition line found [Turnip yellow mosaic virus]   | 3.7     |
| 3213  | 7504416  | gi 7504416 pir T16477 hypothetical protein F56D2.5 - Caenorhabditis elegans gb AAB52683.1  (U13644) F56D2.5 gene product [Caenorhabditis elegans]  | 8.4     |
| 3216  | 14746120 | gi 14746120 ref XP_005163.2  cadherin 17, LI cadherin (liver-intestine) [Homo sapiens] ref XP_043524.1  cadherin 17, LI cadherin (liver-intestine) [Homo sapiens]  | 1E-18   |
| 3217  | 9366835  | gi 9366835 emb CAB95597.1  (AL359782) hypothetical protein, CHR1.368 [Trypanosoma brucei]  | 4.1     |
| 3218  | 6272295  | gi 6272295 gb AAF06072.1 AF072715_3 (AF072715) unknown [Mycoplasma mycoides subsp. capri]  | 0.17    |
| 3220  | 7293488  | gi 7293488 gb AAF48863.1  (AE003509) CG15040 gene product [Drosophila melanogaster]  | 2.8     |
| 3223  | 7662432  | gi 7662432 ref NP_055769.1  KIAA0985 protein [Homo sapiens] ref XP_007006.3  KIAA0985 protein [Homo sapiens] sp Q9Y2J0 RP3A_HUMAN RABPHILIN-3A dbj BAA76829.1  (AB023202) KIAA0985 protein [Homo sapiens]                                      | 0.18    |
| 3225  | 7504860  | gi 7504860 pir T33299 hypothetical protein H05B21.4 - Caenorhabditis elegans gb AAC17764.1  (AF068717) Hypothetical protein H05B21.4 [Caenorhabditis elegans]  | 3.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3226  | 6708056  | gi 6708056 gb AAF25780.1 AF163311_1 (AF163311) Kal1.2 [Danio rerio]   | 2.5     |
| 3229  | 13473697 | gi 13473697 ref NP_105265.1  acyl-CoA thioesterase [Mesorhizobium loti] dbj BAB51051.1  (AP003004) acyl-CoA thioesterase [Mesorhizobium loti]   | 5.4     |
| 3230  | 12964703 | gi 12964703 gb AAK11280.1 AF315035_1 (AF315035) phosphocholine cytidyltransferase [Plasmodium falciparum]   | 2.1     |
| 3231  | 7521951  | gi 7521951 pir T30180 hypothetical protein - Shewanella sp gb AAB81120.1  (U73935) unknown [Shewanella sp. SCRC-2738]   | 6       |
| 3232  | 3249620  | gi 3249620 gb AAC24120.1  (AF067182) IDI-2 precursor [Podospira anserina]   | 3.1     |
| 3233  | 7493160  | gi 7493160 pir T40507 probable vacuolar protein sorting-associated protein - fission yeast (Schizosaccharomyces pombe) emb CAA20730.1  (AL031534) putative vacuolar protein sorting-associated protein [Schizosaccharomyces pombe]  | 5.5     |
| 3237  | 7462822  | gi 7462822 pir C72269 hypothetical protein TM1297 - Thermotoga maritima (strain MSB8) gb AAD36371.1 AE001785_2 (AE001785) oxidoreductase, putative [Thermotoga maritima]  | 5.5     |
| 3241  | 1531651  | gi 1531651 gb AAC61662.1  (U67083) KRAB-zinc finger protein KZF-2 [Rattus norvegicus]   | 4.6     |
| 3247  | 2118405  | gi 2118405 pir I51018 cobra venom factor precursor - monocled cobra gb AAA68989.1  (U09969) cobra venom factor precursor [Naja naja]  | 9.2     |
| 3253  | 11499508 | gi 11499508 ref NP_070749.1  LSU ribosomal protein L4P (rpl4P) [Archaeoglobus fulgidus] sp O28355 RL4_ARCFU 50S RIBOSOMAL PROTEIN L4/L1E pir C69490 LSU ribosomal protein L4P (rpl4P) homolog - Archaeoglobus fulgidus gb AAB89332.1  (AE000971) LSU ribosomal protein L4P (rpl4P) [Archaeoglobus fulgidus] | 2.9     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3258  | 461509   | gi 461509 sp Q03045 AMYG_HORRE<br>GLUCOAMYLASE P PRECURSOR (GLUCAN 1,4-<br>ALPHA-GLUCOSIDASE) (1,4-ALPHA-D-GLUCAN<br>GLUCOHYDROLASE) pir  S33908 glucan 1,4-alpha-<br>glucosidase (EC 3.2.1.3) P precursor - creosote fungus<br>emb CAA47945.1  (X67708) 1, 4-alpha-D-glucan<br>glucohydrolase; glucan 1,4-alpha-glucosidase<br>[Amorphotheca resinae] emb CAA48243.1  (X68143)<br>glucan 1,4-alpha-glucosidase [Amorphotheca resinae]<br>prf  1907167A glucoamylase P [Amorphotheca resinae]<br>prf  2113213A glucoamylase P [Amorphotheca resinae] | 5.8     |
| 3260  | 5817900  | gi 5817900 gb AAD52976.1  (AF176771) reverse<br>transcriptase [Human immunodeficiency virus type 2]  | 6.1     |
| 3262  | 12804147 | gi 12804147 gb AAH02928.1 AAH02928 (BC002928)<br>Unknown (protein for MGC:11357) [Homo sapiens]  | 3E-14   |
| 3266  | 6323756  | gi 6323756 ref NP_013827.1  myosin I; Myo5p<br>[Saccharomyces cerevisiae] sp Q04439 YMZ9_YEAST<br>HYPOTHETICAL MYOSIN-LIKE PROTEIN IN<br>ILV2-ADE17 INTERGENIC REGION pir  S54570<br>probable membrane protein YMR109w - yeast<br>(Saccharomyces cerevisiae) emb CAA89745.1 <br>(Z49702) unknown [Saccharomyces cerevisiae]<br>gb AAB37419.1  Myo5p=actin patch localized myosin I<br>variant/MYO5 product [Saccharomyces<br>cerevisiae=yeast, Peptide, 1219 aa]   | 0.24    |
| 3271  | 12848866 | gi 12848866 dbj BAB28115.1  (AK012246) putative<br>[Mus musculus]  | 0.011   |
| 3273  | 4758842  | gi 4758842 ref NP_004551.1  receptor tyrosine kinase-<br>like orphan receptor 2; Ror2; neurotrophic tyrosine<br>kinase, receptor-related 2 [Homo sapiens]<br>sp Q01974 ROR2_HUMAN TYROSINE-PROTEIN<br>KINASE TRANSMEMBRANE RECEPTOR ROR2<br>PRECURSOR (NEUROTROPHIC TYROSINE<br>KINASE, RECEPTOR-RELATED 2) pir  B45082<br>neurotrophic receptor ror2 precursor - human<br>gb AAA60276.1  (M97639) transmembrane receptor<br>[Homo sapiens]  | 5.6     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3274  | 913140   | gi 913140 gb AAB33486.1  ARK2 product/receptor-like serine/threonine protein kinase ARK2 [Arabidopsis thaliana, Columbia, Peptide, 850 aa]   | 1.7     |
| 3276  | 11357726 | gi 11357726 pir  T51437 hypothetical protein F2G14_40 - Arabidopsis thaliana emb CAC01811.1  (AL391146) putative protein [Arabidopsis thaliana] gb AAK49610.1 AF372894_1 (AF372894) AT5g14920/F2G14_40 [Arabidopsis thaliana] gb AAK74054.1  (AY045696) AT5g14920/F2G14_40 [Arabidopsis thaliana]  | 2       |
| 3277  | 7511204  | gi 7511204 pir  T27899 hypothetical protein ZK546.5 - Caenorhabditis elegans gb AAA68738.1  (U29380) Hypothetical protein ZK546.5 [Caenorhabditis elegans]   | 3.4     |
| 3279  | 7492154  | gi 7492154 pir  T38426 major facilitator protein homolog - fission yeast (Schizosaccharomyces pombe)   | 6       |
| 3285  | 14764251 | gi 14764251 ref XP_011989.3  ELKL motif kinase 1 isoform a [Homo sapiens]  | 9E-18   |
| 3286  | 126686   | gi 126686 sp P27424 MGP1_BOVIN MICROFIBRIL-ASSOCIATED GLYCOPROTEIN PRECURSOR (MAGP) (MAGP-1) (TROPOELASTIN-BINDING PROTEIN) pir A54151 microfibril-associated glycoprotein precursor - bovine gb AAA62715.1  (M59851) microfibril-associated glycoprotein [Bos taurus] gb AAB29686.1  (S68064) microfibril-associated glycoprotein, MAGP=tropoelastin-binding protein [cattle, Peptide Partial, 183 aa] [Bos taurus] | 5.4     |
| 3293  | 13622462 | gi 13622462 gb AAK34181.1  (AE006573) conserved hypothetical protein [Streptococcus pyogenes M1 GAS]   | 6       |
| 3295  | 7523494  | gi 7523494 dbj BAA94222.1  (AP001633) hypothetical protein [Oryza sativa]  | 0.16    |
| 3301  | 5815436  | gi 5815436 gb AAD52672.1 AF178772_1 (AF178772) 98kDa HDM allergen [Dermatophagoides farinae]   | 8.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |          |
|---|----------|--|----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE  |
| 3302  | 7522146  | gi 7522146 pir T17467 rifamycin polyketide synthase modules 9-10 - Amycolatopsis mediterranei<br>emb CAA11039.1  (AJ223012) rifamycin polyketide synthase, type 1 [Amycolatopsis mediterranei]<br>gb AAC01714.1  (AF040570) polyketide synthase [Amycolatopsis mediterranei] | 8.5      |
| 3313  | 14737876 | gi 14737876 ref XP_031833.1  collagen, type V, alpha 1 [Homo sapiens]  | 9.6      |
| 3316  | 10092673 | gi 10092673 ref NP_064709.1  hypothetical protein [Homo sapiens] ref XP_048065.1  hypothetical protein [Homo sapiens] gb AAC24312.1  (AC004382)<br>Unknown gene product [Homo sapiens]   | 0.000002 |
| 3317  | 135937   | gi 135937 sp P04924 TNFA_RABIT TUMOR NECROSIS FACTOR PRECURSOR (TNF-ALPHA) (CACHECTIN) gb AAA31482.1  (M12846) tumor necrosis factor [Oryctolagus cuniculus]<br>gb AAA31484.1  (M60340) tumor necrosis factor [Oryctolagus cuniculus]  | 8.2      |
| 3318  | 11282039 | gi 11282039 pir C82096 aminoacyl-histidine dipeptidase VC2279 [imported] - Vibrio cholerae (group O1 strain N16961) gb AAF95423.1  (AE004299) aminoacyl-histidine dipeptidase [Vibrio cholerae]  | 0.73     |
| 3320  | 11360605 | gi 11360605 pir A81752 conserved hypothetical protein TC0009 [imported] - Chlamydia muridarum (strain Nigg) gb AAF38902.1  (AE002269) conserved hypothetical protein [Chlamydia muridarum]   | 9.2      |
| 3321  | 7491033  | gi 7491033 pir T38495 hypothetical protein SPAC29B12.07 - fission yeast (Schizosaccharomyces pombe)  | 0.46     |
| 3322  | 102425   | gi 102425 pir B41132 collagen-related protein 2 - Hydra magnipapillata (fragment) pir S21930 mini-collagen - Hydra sp emb CAA43380.1  (X61046) mini-collagen [Hydra sp.]   | 0.99     |
| 3328  | 7507644  | gi 7507644 pir T25887 hypothetical protein T10H10.2 - Caenorhabditis elegans gb AAB37989.1  (U80848)<br>T10H10.2 gene product [Caenorhabditis elegans]   | 4.3      |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |          |
|---|----------|--|----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE  |
| 3351  | 7507391  | gi 7507391 pir T24665 hypothetical protein T07F10.4 - <i>Caenorhabditis elegans</i> emb CAB01241.1  (Z77669) predicted using Genefinder~Similarity to Human mRNA (KIAA0033) (TR:G436224) [ <i>Caenorhabditis elegans</i> ]   | 6.3      |
| 3355  | 7476137  | gi 7476137 pir A70989 hypothetical glycine-rich protein Rv1768 - <i>Mycobacterium tuberculosis</i> (strain H37RV) emb CAB09311.1  (Z95890) PE_PGRS [ <i>Mycobacterium tuberculosis</i> ]   | 4.1      |
| 3359  | 6782280  | gi 6782280 emb CAB70102.1  (AL132949) Y53F4B.7 [ <i>Caenorhabditis elegans</i> ] emb CAB70113.2  (AL132949) Y53F4B.26 [ <i>Caenorhabditis elegans</i> ]  | 5.6      |
| 3361  | 14133241 | gi 14133241 dbj BAA86438.2  (AB032950) KIAA1124 protein [ <i>Homo sapiens</i> ]  | 0.28     |
| 3362  | 117000   | gi 117000 sp P04371 COX1_TRYBB CYTOCHROME C OXIDASE POLYPEPTIDE I pir ODUTMB cytochrome-c oxidase (EC 1.9.3.1) chain I - <i>Trypanosoma brucei</i> mitochondrion gb AAB59223.1  (M14820) cytochrome c oxidase subunit I [ <i>Trypanosoma brucei</i> ] emb CAB57806.1  (X01094) put. gene for cytochrome c oxidase subunit I gene [ <i>Trypanosoma brucei</i> ] | 1.7      |
| 3369  | 2072972  | gi 2072972 gb AAC51276.1  (U93572) putative p150 [ <i>Homo sapiens</i> ]   | 0.000008 |
| 3371  | 13476092 | gi 13476092 ref NP_107662.1  ABC transporter permease protein [ <i>Mesorhizobium loti</i> ] dbj BAB53448.1  (AP003011) ABC transporter permease protein [ <i>Mesorhizobium loti</i> ]  | 0.43     |
| 3372  | 13385538 | gi 13385538 ref NP_080316.1  RIKEN cDNA 2810036K01 gene [ <i>Mus musculus</i> ] dbj BAB28520.1  (AK012865) putative [ <i>Mus musculus</i> ]  | 2E-58    |
| 3376  | 14765434 | gi 14765434 ref XP_030354.1  similar to KIAA0220 protein (H. sapiens) [ <i>Homo sapiens</i> ]  | 8        |
| 3393  | 10641134 | gi 10641134 dbj BAB16313.1  (AB049587) fork head/HNF-3 homologue [ <i>Ciona savignyi</i> ]   | 9.2      |
| 3396  | 11358605 | gi 11358605 pir T49882 pectin methyl-esterase-like protein - <i>Arabidopsis thaliana</i> emb CAB87932.1  (AL163912) pectin methyl-esterase-like protein [ <i>Arabidopsis thaliana</i> ]  | 4.1      |

| SEQ ID NO | ACCESS N | DESCRIPTION  | P VALUE |
|-----------|----------|--|---------|
| 3397      | 4493932  | gi 4493932 emb CAB38968.1  (AL034556) Hypothetical protein, PFC0580c [Plasmodium falciparum]   | 7       |
| 3400      | 11496667 | gi 11496667 ref NP_045466.1  conserved hypothetical protein [Borrelia burgdorferi] pir F70231 conserved hypothetical protein BBG06 - Lyme disease spirochete plasmid G/lp28-2 gb AAC66054.1  (AE000786) conserved hypothetical protein [Borrelia burgdorferi]                        | 7.3     |
| 3403      | 7020787  | gi 7020787 dbj BAA91274.1  (AK000589) unnamed protein product [Homo sapiens]   | 5E-19   |
| 3404      | 12045115 | gi 12045115 ref NP_072926.1  lipoprotein, putative [Mycoplasma genitalium] sp P47502 Y260_MYCGE HYPOTHETICAL LIPOPROTEIN MG260 PRECURSOR pir G64228 hypothetical protein homolog MG260 - Mycoplasma genitalium gb AAC71481.1  (U39705) lipoprotein, putative [Mycoplasma genitalium] | 3.4     |
| 3407      | 13959004 | gi 13959004 gb AAK51055.1 AF361075_2 (AF361075) UL24 [Canine herpesvirus]  | 0.89    |
| 3408      | 13814730 | gi 13814730 gb AAK41724.1  (AE006765) Hypothetical protein [Sulfolobus solfataricus]   | 9.1     |
| 3415      | 12744896 | gi 12744896 gb AAK06840.1 AF329637_1 (AF329637) mitofusin 1 precursor [Homo sapiens]   | 0.16    |
| 3416      | 8922500  | gi 8922500 ref NP_060600.1  hypothetical protein FLJ10539 [Homo sapiens] dbj BAA91669.1  (AK001401) unnamed protein product [Homo sapiens]   | 7.1     |
| 3418      | 6635084  | gi 6635084 emb CAB64573.1  (AL135930) hypothetical protein L4738.02 [Leishmania major]   | 3.5     |
| 3419      | 296559   | gi 296559 emb CAA49925.1  (X70529) ORF YBR1730 [Saccharomyces cerevisiae]  | 0.42    |
| 3422      | 5579432  | gi 5579432 gb AAD45553.1 U70376_18 (U70376) SpcH [Streptomyces netropsis]  | 6.3     |
| 3423      | 11466493 | gi 11466493 ref NP_038196.1  cytochrome c oxidase subunit 3 [Chrysodidymus synuroideus] gb AAF36962.1 AF222718_36 (AF222718) cytochrome c oxidase subunit 3 [Chrysodidymus synuroideus]  | 6       |
| 3424      | 1084985  | gi 1084985 pir S51908 cryptogene protein G1(ND9) - Leishmania tarentolae (strain LEM125)   | 6.6     |
| 3426      | 8778413  | gi 8778413 gb AAF79421.1 AC025808_3 (AC025808) F18O14.6 [Arabidopsis thaliana]   | 4.2     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3430  | 13992688 | gi 13992688 gb AAK51582.1 AC022352_18 (AC022352) Putative retroelement [ <i>Oryza sativa</i> ]  | 9.3     |
| 3431  | 9280694  | gi 9280694 gb AAF86563.1 AC069252_22 (AC069252) F2E2.6 [ <i>Arabidopsis thaliana</i> ]  | 3.3     |
| 3437  | 4115918  | gi 4115918 gb AAD03429.1  (AF118222) similar to nascent polypeptide associated complex alpha chain [ <i>Arabidopsis thaliana</i> ]  | 4.4     |
| 3438  | 7433244  | gi 7433244 pir T01751 gibberellin 20-oxidase - common tobacco dbj BAA31690.1  (AB016084) Ntc16 [ <i>Nicotiana tabacum</i> ]   | 1.2     |
| 3439  | 3978489  | gi 3978489 gb AAC83366.1  (AF092918) unknown [ <i>Pseudomonas alcaligenes</i> ]   | 8.5     |
| 3441  | 7506359  | gi 7506359 pir T23969 hypothetical protein R06C7.5 - <i>Caenorhabditis elegans</i> emb CAA95843.1  (Z71266) Similarity to Human adenylosuccinate lyase (SW:PUR8_HUMAN), contains similarity to Pfam domain: PF00206 (Lyase), Score=165.2, E-value=3.5e-46, N=1~cDNA EST EMBL:Z14522 comes from this gene~cDNA EST yk67g5.3 comes from this gene~cDNA EST yk67g5>  | 5.9     |
| 3443  | 12852662 | gi 12852662 dbj BAB29494.1  (AK014667) putative [ <i>Mus musculus</i> ]   | 2E-28   |
| 3448  | 9256527  | gi 9256527 ref NP_061764.1  ceroid-lipofuscinosis, neuronal 8 (epilepsy, progressive with mental retardation) [ <i>Homo sapiens</i> ]<br>gb AAF13115.1 AF123757_1 (AF123757) putative transmembrane protein [ <i>Homo sapiens</i> ]<br>gb AAF13116.1 AF123758_1 (AF123758) putative transmembrane protein [ <i>Homo sapiens</i> ]<br>gb AAF13117.1 AF123759_1 (AF123759) putative transmembrane protein [ <i>Homo sapiens</i> ]<br>gb AAF13118.1 AF123760_1 (AF123760) putative transmembrane protein [ <i>Homo sapiens</i> ]<br>gb AAF13119.1 AF123761_1 (AF123761) putative transmembrane protein [ <i>Homo sapiens</i> ] | 2.7     |
| 3457  | 7705167  | gi 7705167 gb AAC60545.2  (S54379) sucrose-phosphate synthase; SPS [ <i>Spinacia oleracea</i> ]   | 8.6     |
| 3461  | 10179322 | gi 10179322 dbj BAB13673.1  (AB041350) type IV collagen alpha 5 chain [ <i>Mus musculus</i> ]   | 0.25    |
| 3462  | 13882453 | gi 13882453 gb AAK47018.1  (AE007102) hypothetical protein [ <i>Mycobacterium tuberculosis</i> CDC1551]   | 3.6     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3466  | 2499996  | gi 2499996 sp Q45298 PTGA_CORGL PTS SYSTEM, GLUCOSE-SPECIFIC IIABC COMPONENT (EIIABC-GLC) (GLUCOSE-PERMEASE IIABC COMPONENT) (PHOSPHOTRANSFERASE ENZYME II, ABC COMPONENT) (EII-GLC/EIII-GLC) gb AAA22992.1  (L18875) phosphoenolpyruvate sugar phosphotransferase [Corynebacterium glutamicum] | 9.9     |
| 3467  | 7503384  | gi 7503384 pir  T31714 probable zinc proteinase (EC 3.4.24.-) F44E7.4 - Caenorhabditis elegans gb AAC25789.1  (AF016421) Hypothetical protein F44E7.4 [Caenorhabditis elegans]  | 5.1     |
| 3472  | 225485   | gi 225485 prf  1304284B beejin [Dictyostelium discoideum]   | 5       |
| 3482  | 7302644  | gi 7302644 gb AAF57724.1  (AE003800) fj gene product [Drosophila melanogaster]  | 0.19    |
| 3487  | 3121914  | gi 3121914 sp Q37679 COX3_THEAN CYTOCHROME C OXIDASE POLYPEPTIDE III gb AAA73631.1  (U32225) cytochrome oxidase polypeptide III [Theileria annulata]  | 6.9     |
| 3489  | 1351243  | gi 1351243 sp P47749 THRR_XENLA THROMBIN RECEPTOR PRECURSOR pir  I51667 thrombin receptor - African clawed frog gb AAA18498.1  (U09632) thrombin receptor [Xenopus laevis]  | 6.2     |
| 3491  | 12517831 | gi 12517831 gb AAG58344.1 AE005549_1 (AE005549) aerobic respiration sensor-response protein; histidine protein kinase/phosphatase, sensor for arcA [Escherichia coli O157:H7 EDL933] dbj BAB37512.1  (AP002564) aerobic respiration sensor-response protein [Escherichia coli O157:H7]          | 6.9     |
| 3492  | 2240037  | gi 2240037 gb AAB66910.1  (AF005356) integrin subunit betaCn1 [Acropora millepora]  | 5.5     |
| 3494  | 14742385 | gi 14742385 ref XP_046349.1  33219 [Homo sapiens]   | 4.6     |
| 3501  | 12847027 | gi 12847027 dbj BAB27408.1  (AK011113) putative [Mus musculus]  | 5.6     |
| 3505  | 1763691  | gi 1763691 gb AAB39835.1  (U72048) glycoprotein [Classical swine fever virus]   | 1.2     |
| 3507  | 13470696 | gi 13470696 ref NP_102265.1  unknown protein [Mesorhizobium loti] dbj BAB48051.1  (AP002994) unknown protein [Mesorhizobium loti]   | 5.1     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3511  | 7706335  | gi 7706335 ref NP_057140.1  CGI-119 protein [Homo sapiens] gb AAD34114.1 AF151877_1 (AF151877) CGI-119 protein [Homo sapiens]   | 2.3     |
| 3512  | 13812236 | gi 13812236 ref NP_113367.1  hypothetical protein [Guillardia theta] gb AAK39923.1 AF165818_131 (AF165818) hypothetical protein [Guillardia theta]  | 2.4     |
| 3513  | 7510320  | gi 7510320 pir T33571 hypothetical protein Y59C2A.2 - Caenorhabditis elegans gb AAC68742.1  (AF099003) Y59C2A.2 gene product [Caenorhabditis elegans]   | 0.37    |
| 3517  | 12724149 | gi 12724149 gb AAK05281.1 AE006350_8 (AE006350) HYPOTHETICAL PROTEIN [Lactococcus lactis subsp. lactis]   | 1.7     |
| 3519  | 2342679  | gi 2342679 gb AAB70402.1  (AC000106) Similar to Vicia sativa ENBP1 (gb X95995). [Arabidopsis thaliana]  | 5.2     |
| 3520  | 7305389  | gi 7305389 ref NP_038658.1  polycystic kidney disease 1 homolog; polycystin-1 [Mus musculus] gb AAC53207.1  (U70209) polycystic kidney disease 1 protein [Mus musculus]   | 2.2     |
| 3523  | 1353257  | gi 1353257 gb AAB06234.1  (U26665) dimethyl sulphoxide reductase subunit B [Haemophilus influenzae]   | 3.9     |
| 3524  | 14794474 | gi 14794474 gb AAK73355.1 AF390546_1 (AF390546) gut-enriched kruppel-like factor [Rattus norvegicus]  | 0.47    |
| 3527  | 7510320  | gi 7510320 pir T33571 hypothetical protein Y59C2A.2 - Caenorhabditis elegans gb AAC68742.1  (AF099003) Y59C2A.2 gene product [Caenorhabditis elegans]   | 0.89    |
| 3530  | 10173181 | gi 10173181 dbj BAB04286.1  (AP001509) nickel transport system (nickel-binding protein) [Bacillus halodurans]   | 4.6     |
| 3531  | 7442453  | gi 7442453 pir G72215 oligopeptide ABC transporter, permease protein - Thermotoga maritima (strain MSB8) gb AAD36813.1 AE001813_5 (AE001813) oligopeptide ABC transporter, permease protein [Thermotoga maritima] | 8.7     |
| 3532  | 11136027 | gi 11136027 sp O88553 ZF37_RAT ZINC FINGER PROTEIN 37 (ZFP-37) gb AAC24590.1  (AF072439) zinc-finger protein-37; ZFP-37 [Rattus norvegicus]   | 1.8     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3538  | 14732500 | gi 14732500 ref XP_041698.1  hypothetical protein FLJ10904 [Homo sapiens] ref XP_041699.1  50659 [Homo sapiens]  | 8.5     |
| 3540  | 7438506  | gi 7438506 pir  T09963 mitosis-specific cyclin B-type - Madagascar periwinkle dbj BAA20411.1  (D86386) B-type cyclin [Catharanthus roseus]   | 0.75    |
| 3541  | 7495199  | gi 7495199 pir  T31857 hypothetical protein C02E7.14 - Caenorhabditis elegans gb AAC24171.1  (AF016446) Hypothetical protein C02E7.14 [Caenorhabditis elegans]   | 4.9     |
| 3542  | 162223   | gi 162223 gb AAA30233.1  (M27163) RNA polymerase III [Trypanosoma brucei]  | 4.9     |
| 3546  | 6635084  | gi 6635084 emb CAB64573.1  (AL135930) hypothetical protein L4738.02 [Leishmania major]   | 2.7     |
| 3549  | 13095647 | gi 13095647 ref NP_076562.1  unknown [Bovine herpesvirus 4] gb AAK07989.1 AF318573_69 (AF318573) unknown [Bovine herpesvirus 4]  | 6.9     |
| 3551  | 11359423 | gi 11359423 pir  T48729 hypothetical protein 8D4.30 [imported] - Neurospora crassa emb CAB88545.1  (AL353819) conserved hypothetical protein [Neurospora crassa]   | 5.3     |
| 3556  | 13241881 | gi 13241881 gb AAK16450.1  (AF327992) cytochrome oxidase subunit I [Platydictyus undatus]  | 9.7     |
| 3562  | 4589564  | gi 4589564 dbj BAA76804.1  (AB023177) KIAA0960 protein [Homo sapiens]  | 4.8     |
| 3563  | 7486330  | gi 7486330 pir  T05113 hypothetical protein F28M20.240 - Arabidopsis thaliana emb CAA19766.1  (AL031004) putative protein [Arabidopsis thaliana] emb CAB79875.1  (AL161579) putative protein [Arabidopsis thaliana]  | 8.3     |
| 3569  | 118965   | gi 118965 sp P23098 DYHC_TRIGR DYNEIN BETA CHAIN, CILIARY pir  S17653 dynein beta heavy chain, ciliary - sea urchin (Tripneustes gratilla) emb CAA42170.1  (X59603) Beta heavy chain of outer-arm axonemal dynein ATPase [Tripneustes gratilla] prf  1714372A dynein:SUBUNIT=beta heavy chain [Tripneustes gratilla] | 7.7     |
| 3571  | 7662078  | gi 7662078 ref NP_055454.1  KIAA0372 gene product [Homo sapiens] dbj BAA20827.1  (AB002370) KIAA0372 [Homo sapiens]  | 5E-65   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |             |  |         |
|---|-------------|--|---------|
| SEQ ID<br>NO  | ACCESS<br>N | DESCRIPTION  | P VALUE |
| 3576  | 5803098     | gi 5803098 ref NP_006757.1  zinc finger protein 220; Monocytic leukemia zinc finger protein [Homo sapiens] sp Q92794 MOZ_HUMAN MONOCYTIC LEUKEMIA ZINC FINGER PROTEIN (ZINC FINGER PROTEIN 220) gb AAC50662.1  (U47742) monocytic leukaemia zinc finger protein [Homo sapiens]           | 4.6     |
| 3582  | 9964384     | gi 9964384 ref NP_064852.1  AMV070 [Amsacta moorei entomopoxvirus] gb AAG02776.1 AF250284_70 (AF250284) AMV070 [Amsacta moorei entomopoxvirus]   | 9       |
| 3583  | 13272342    | gi 13272342 gb AAK17105.1 AF291051_2 (AF291051) ATP synthase subunit a [Candidatus Carsonella ruddii]  | 1.3     |
| 3586  | 7505649     | gi 7505649 pir T28783 hypothetical protein K09E10.1 - Caenorhabditis elegans gb AAC48044.1  (AF003149) Hypothetical protein K09E10.1 [Caenorhabditis elegans]  | 2.9     |
| 3587  | 2981631     | gi 2981631 dbj BAA25253.1  (AB012223) ORF2 [Canis familiaris]  | 0.98    |
| 3590  | 6018210     | gi 6018210 gb AAF01791.1  (AF143853) 82 kD heat shock protein [Moniliformis moniliformis]  | 0.15    |
| 3593  | 7160719     | gi 7160719 emb CAA88053.2  (Z48007) contains similarity to Pfam domain: PF00069 (Eukaryotic protein kinase domain), Score=49.7, E-value=3.4e-13, N=3; PF00211 (Adenylate and Guanylate cyclase catalytic domain), Score=325.1, E-value=2.5e-94, N=1; PF01094 (Receptor family ligand bi> | 4.3     |
| 3599  | 7470593     | gi 7470593 pir S75491 hypothetical protein slr2115 - Synechocystis sp. (strain PCC 6803) dbj BAA18052.1  (D90911) ORF_ID:slr2115~unknown protein [Synechocystis sp. PCC 6803]  | 5.5     |
| 3600  | 1334398     | gi 1334398 emb CAA33190.1  (X15081) MURF2 protein (AA 1-348) [Crithidia fasciculata]   | 2.2     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3602  | 118965   | gi 118965 sp P23098 DYHC_TRIGR DYNEIN BETA CHAIN, CILIARY pir S17653 dynein beta heavy chain, ciliary - sea urchin ( <i>Tripneustes gratilla</i> ) emb CAA42170.1  (X59603) Beta heavy chain of outer-arm axonemal dynein ATPase [ <i>Tripneustes gratilla</i> ] prf 1714372A dynein:SUBUNIT=beta heavy chain [ <i>Tripneustes gratilla</i> ] | 9.8     |
| 3603  | 14578630 | gi 14578630 gb AAK68919.1 AF189282_9 (AF189282) putative glycosyltransferase [ <i>Bacteroides fragilis</i> ]  | 0.29    |
| 3606  | 14318569 | gi 14318569 ref NP_116702.1  Yfr044cp [ <i>Saccharomyces cerevisiae</i> ] sp P43616 YFL4_YEAST HYPOTHETICAL 52.9 KD PROTEIN IN SAP155-YMR31 INTERGENIC REGION pir S56299 hypothetical protein YFR044c - yeast ( <i>Saccharomyces cerevisiae</i> ) dbj BAA09283.1  (D50617) YFR044C [ <i>Saccharomyces cerevisiae</i> ]                        | 3       |
| 3609  | 10581847 | gi 10581847 gb AAG20525.1  (AE005124) Vng2444c [ <i>Halobacterium</i> sp. NRC-1]  | 4.5     |
| 3616  | 1363925  | gi 1363925 pir S57662 hypothetical protein 2 - North American opossum (fragment) emb CAA88817.1  (Z48955) ORF-2, putative RT [ <i>Didelphis virginiana</i> ]  | 3.6     |
| 3618  | 1808609  | gi 1808609 emb CAA64091.1  (X94355) D6L [Cowpox virus] emb CAA72556.1  (Y11842) C6L [Cowpox virus]  | 9.6     |
| 3619  | 14775653 | gi 14775653 ref XP_045559.1  similar to KIAA0565 gene product ( <i>H. sapiens</i> ) [ <i>Homo sapiens</i> ]   | 4.7     |
| 3621  | 7475003  | gi 7475003 pir G69801 hypothetical protein yfhO - <i>Bacillus subtilis</i> emb CAB12689.1  (Z99108) yfhO [ <i>Bacillus subtilis</i> ] dbj BAA24481.1  (D85082) YfhO [ <i>Bacillus subtilis</i> ]  | 8.1     |
| 3626  | 5902895  | gi 5902895 dbj BAA84478.1  (AB032367) type I polyketide synthase AVES 3 [ <i>Streptomyces avermitilis</i> ]   | 4.3     |
| 3627  | 7444049  | gi 7444049 pir F72275 phosphate regulon transcription regulator PhoB - <i>Thermotoga maritima</i> (strain MSB8) gb AAD36333.1 AE001781_4 (AE001781) phosphate regulon transcriptional regulatory protein PhoB [ <i>Thermotoga maritima</i> ]  | 2.8     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3630  | 7507776  | gi 7507776 pir T16867 probable cytochrome P450 T13C5.1 [similarity] - <i>Caenorhabditis elegans</i>  | 1.6     |
| 3632  | 11360480 | gi 11360480 pir H82745 acyl-[ACP]-UDP-N-acetylglucosamine XF0918 [imported] - <i>Xylella fastidiosa</i> (strain 9a5c) gb AAF83728.1 AE003931_5 (AE003931) acyl-[ACP]-UDP-N-acetylglucosamine [ <i>Xylella fastidiosa</i> 9a5c]   | 1.3     |
| 3633  | 13873167 | gi 13873167 gb AAK43406.1  (AF196891) polygalacturonase inhibitor protein [ <i>Fragaria vesca</i> ] gb AAK43407.1  (AF196892) polygalacturonase inhibitor protein [ <i>Fragaria vesca</i> ] gb AAK43408.1  (AF196893) polygalacturonase inhibitor protein [ <i>Fragaria vesca</i> ]  | 3.7     |
| 3636  | 10946710 | gi 10946710 ref NP_067350.1  Rhesus blood group-associated B glycoprotein; Rh type B glycoprotein [ <i>Mus musculus</i> ] gb AAF19371.1  (AF193808) Rh type B glycoprotein [ <i>Mus musculus</i> ]   | 4.9     |
| 3638  | 7447412  | gi 7447412 pir T06201 xyloglucan endo-1,4-beta-D-glucanase (EC 3.2.1.-) - barley emb CAA63662.1  (X93174) xyloglucan endotransglycosylase (XET) [ <i>Hordeum vulgare</i> ]   | 5.5     |
| 3639  | 12620601 | gi 12620601 gb AAG60877.1 AF322012_182 (AF322013) ID409 [ <i>Bradyrhizobium japonicum</i> ]  | 6.4     |
| 3640  | 1175418  | gi 1175418 sp Q09743 ST16_SCHPO STE16 PROTEIN pir T39379 sexual differentiation and meiosis protein ste20 - fission yeast ( <i>Schizosaccharomyces pombe</i> ) emb CAA90815.1  (Z54140) required for sexual differentiation and meiosis [ <i>Schizosaccharomyces pombe</i> ] emb CAA11758.1  (AJ223984) Ste20 protein [ <i>Schizosaccharomyces pombe</i> ] | 4.6     |
| 3641  | 1172876  | gi 1172876 sp P35906 RDS_FELCA PERIPHERIN (RETINAL DEGENERATION SLOW PROTEIN) pir I46087 peripherin - cat gb AAA19175.1  (M94047) peripherin [ <i>Felis catus</i> ]  | 5.1     |
| 3643  | 825671   | gi 825671 emb CAA34809.1  (X16934) B23 nucleophosmin (280 AA) [ <i>Homo sapiens</i> ]  | 2E-10   |
| 3645  | 2388576  | gi 2388576 gb AAB71457.1  (AC000098) YUP8H12.17 [ <i>Arabidopsis thaliana</i> ]  | 3.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3648  | 7498664  | gi 7498664 pir T20598 hypothetical protein F08G2.4 - <i>Caenorhabditis elegans</i> emb CAB04058.1  (Z81495) predicted using Genefinder~cDNA EST yk401a9.3 comes from this gene~cDNA EST yk401a9.5 comes from this gene~cDNA EST yk523d8.3 comes from this gene~cDNA EST yk523d8.5 comes from this gene [Caenorhabditis elegans] gb AAG50226.1 AF303268_1 (AF303268) 20123 [Caenorhabditis elegans] | 9.4     |
| 3654  | 225992   | gi 225992 prf 1405326A GLI gene [Homo sapiens]   | 3.2     |
| 3657  | 422532   | gi 422532 pir A45407 collagen alpha 3(IV) chain - sea urchin ( <i>Strongylocentrotus purpuratus</i> )  | 0.94    |
| 3658  | 14149807 | gi 14149807 ref NP_115517.1  hypothetical protein DKFZp434K1421 [Homo sapiens] emb CAB66740.1  (AL136806) hypothetical protein [Homo sapiens]  | 4E-65   |
| 3665  | 134872   | gi 134872 sp P13666 SRCA_RABIT SARCALUMENIN PRECURSOR gb AAA31189.1  (M25750) sarcolumenin precursor [Oryctolagus cuniculus]   | 8.1     |
| 3670  | 14734955 | gi 14734955 ref XP_046758.1  tensin [Homo sapiens]   | 0.47    |
| 3675  | 14742385 | gi 14742385 ref XP_046349.1  33219 [Homo sapiens]  | 2.1     |
| 3676  | 2197085  | gi 2197085 gb AAD04635.1  (AF003535) ORF2-like protein [Homo sapiens]  | 0.14    |
| 3690  | 1711034  | gi 1711034 gb AAB38323.1  (U78953) basic helix-loop-helix DNA binding protein HLH-3 [Caenorhabditis elegans]   | 5.4     |
| 3692  | 2072964  | gi 2072964 gb AAC51271.1  (U93569) putative p150 [Homo sapiens]  | 0.15    |
| 3693  | 1857258  | gi 1857258 gb AAB48409.1  (U75538) putative viral polymerase [tobacco streak virus]  | 5.3     |
| 3694  | 8573079  | gi 8573079 ref NP_059567.1  NADH dehydrogenase subunit 1 [Sciurus vulgaris] emb CAB93985.1  (AJ238588) NADH dehydrogenase subunit 1 [Sciurus vulgaris]   | 3E-15   |
| 3699  | 12654875 | gi 12654875 gb AAH01281.1 AAH01281 (BC001281) tumor necrosis factor receptor superfamily, member 10b [Homo sapiens]  | 7.9     |
| 3704  | 2961586  | gi 2961586 gb AAC05758.1  (AF051294) NADH dehydrogenase subunit 1 [Dalbulus gelbus]  | 4.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |          |
|---|----------|--|----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE  |
| 3707  | 1504016  | gi 1504016 dbj BAA13207.1  (D86971) no similarities to reported gene products [Homo sapiens]   | 6E-11    |
| 3709  | 11466493 | gi 11466493 ref NP_038196.1  cytochrome c oxidase subunit 3 [Chrysodidymus synuroideus]<br>gb AAF36962.1 AF222718_36 (AF222718) cytochrome c oxidase subunit 3 [Chrysodidymus synuroideus]   | 5.7      |
| 3710  | 14089788 | gi 14089788 emb CAC13547.1  (AL445564)<br>LIPOPROTEIN [Mycoplasma pulmonis]  | 2.4      |
| 3724  | 8978260  | gi 8978260 dbj BAA98151.1  (AB025612) CLP protease regulatory subunit CLPX-like [Arabidopsis thaliana]   | 5.4      |
| 3727  | 14748431 | gi 14748431 ref XP_018068.2  hypothetical protein MGC3199 [Homo sapiens]   | 0.000009 |
| 3734  | 10727054 | gi 10727054 gb AAF46943.2  (AE003459) CG3037 gene product [Drosophila melanogaster]  | 3.8      |
| 3735  | 6323629  | gi 6323629 ref NP_013700.1  Yml013c-ap [Saccharomyces cerevisiae] pir S69871 hypothetical protein YML012c-a - yeast (Saccharomyces cerevisiae)   | 9        |
| 3736  | 4502081  | gi 4502081 ref NP_001626.1  amphiphysin; amphiphysin (Stiff-Man syndrome with breast cancer 128kD autoantigen) [Homo sapiens] ref XP_035768.1  amphiphysin [Homo sapiens] ref XP_035767.1  amphiphysin [Homo sapiens]<br>sp P49418 AMPH_HUMAN AMPHIPHYSIN<br>pir S62400 amphiphysin (clone 22-2) - human<br>gb AAA21865.1  (U07616) amphiphysin [Homo sapiens] emb CAA57197.1  (X81438) amphiphysin [Homo sapiens] | 0.61     |
| 3741  | 7492913  | gi 7492913 pir T40695 probable ribosomal protein precursor, mitochondrial - fission yeast (Schizosaccharomyces pombe) emb CAB36868.1  (AL035536) mitochondrial ribosomal protein L36 [Schizosaccharomyces pombe]   | 6.7      |
| 3743  | 1168945  | gi 1168945 sp P30572 CHS2_CANAL CHITIN SYNTHASE 2 (CHITIN-UDP ACETYL-GLUCOSAMINYL TRANSFERASE 2)<br>gb AAB59308.2  (M82937) chitin synthase 2 [Candida albicans]   | 1.2      |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |             |
|---|----------|---|-------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE     |
| 3745  | 12722927 | gi 12722927 gb AAK04181.1 AE006247_3 (AE006247) UNKNOWN PROTEIN [Lactococcus lactis subsp. lactis]  | 2.9         |
| 3747  | 6090792  | gi 6090792 gb AAF03328.1  (AF101747) olfactory receptor [Pan paniscus]  | 4.1         |
| 3750  | 12846356 | gi 12846356 dbj BAB27137.1  (AK010713) putative [Mus musculus]  | 0.000000004 |
| 3754  | 4240279  | gi 4240279 dbj BAA74918.1  (AB020702) KIAA0895 protein [Homo sapiens]   | 10          |
| 3755  | 543715   | gi 543715 sp P36875 2AAA_PEA PROTEIN PHOSPHATASE PP2A REGULATORY SUBUNIT A (PR65) pir  S40171 phosphoprotein phosphatase 2A 65kDa regulatory chain - garden pea (fragment) pir  S43776 phosphoprotein phosphatase 2A 65kDa regulatory subunit - garden pea (fragment) emb CAA81107.1  (Z25888) phosphoprotein phosphatase 2A 65kDa regulatory subunit [Pisum sativum] | 6E-12       |
| 3756  | 11353649 | gi 11353649 pir  D81094 hypothetical protein NMB1340 [imported] - Neisseria meningitidis (group B strain MD58) gb AAF41715.1  (AE002482) hypothetical protein [Neisseria meningitidis MC58]   | 3.4         |
| 3761  | 11276053 | gi 11276053 gb AAG33872.1 AF319939_1 (AF319939) enhancin [Choristoneura fumiferana granulovirus]  | 4.3         |
| 3763  | 13812312 | gi 13812312 ref NP_113430.1  40S ribosomal protein SSA [Guillardia theta] emb CAC26999.1  (AJ010592) 40S ribosomal protein SSA [Guillardia theta]   | 9.3         |
| 3764  | 4115943  | gi 4115943 gb AAD03453.1  (AF118223) contains similarity to eukaryotic protein kinase domains (Pfam: PF00069, score=312.6, E=4.7e-90, N=1) and EF hand domains (Pfam: PF00036, score=131, E=2.1e-35, N=4) [Arabidopsis thaliana] emb CAB80837.1  (AL161501) putative calcium dependent protein kinase [Arabidopsis thaliana]  | 1.2         |
| 3765  | 7494381  | gi 7494381 pir  H71613 probable multiple transmembrane domain protein PFB0475c - malaria parasite (Plasmodium falciparum) gb AAC71884.1  (AE001397) predicted multiple transmembrane domain protein [Plasmodium falciparum]   | 8.5         |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3768  | 3930075  | gi 3930075 gb AAC82262.1  (U81928) envelope glycoprotein [Human immunodeficiency virus type 1]  | 2.5     |
| 3769  | 4493896  | gi 4493896 emb CAB39005.1  (AL034558) predicted using hexExon; MAL3P2.18 (PFC0245c), Hypothetical protein, len: 3934 aa [Plasmodium falciparum]   | 9.2     |
| 3770  | 14193274 | gi 14193274 gb AAK55866.1 AF267203_2 (AF267203) ATP synthase gamma subunit [Candidatus Carsonella ruddii]   | 6.3     |
| 3771  | 11499055 | gi 11499055 ref NP_070289.1  hypothetical protein [Archaeoglobus fulgidus] sp O28812 YE60_ARCFU HYPOTHETICAL PROTEIN AF1460 pir C69432 hypothetical protein AF1460 - Archaeoglobus fulgidus gb AAB89791.1  (AE001002) A. fulgidus predicted coding region AF1460 [Archaeoglobus fulgidus]   | 5.9     |
| 3773  | 7301453  | gi 7301453 gb AAF56578.1  (AE003755) CG12290 gene product [Drosophila melanogaster]   | 9.3     |
| 3777  | 11467606 | gi 11467606 ref NP_050068.1  NH2 terminus uncertain [Leishmania tarentolae] pir B26696 hypothetical protein 1 (CYb-COII intergenic region) - Leishmania tarentolae mitochondrion (fragment) gb AAA96601.1  (M10126) NH2 terminus uncertain [Leishmania tarentolae]  | 0.4     |
| 3780  | 7507710  | gi 7507710 pir T23023 hypothetical protein T12A7.5 - Caenorhabditis elegans emb CAB07423.1  (Z92847) cDNA EST yk26a3.5 comes from this gene~cDNA EST yk29g7.5 comes from this gene~cDNA EST yk29g8.5 comes from this gene~cDNA EST yk50c8.5 comes from this gene~cDNA EST yk52f12.5 comes from this gene~cDNA EST yk53c1.5 comes from this gene~cDNA EST> emb CAA98143.1  (Z73911) cDNA EST yk26a3.5 comes from this gene~cDNA EST yk29g7.5 comes from this gene~cDNA EST yk29g8.5 comes from this gene~cDNA EST yk50c8.5 comes from this gene~cDNA EST yk52f12.5 comes from this gene~cDNA EST yk53c1.5 comes from this gene~cDNA EST> | 2.6     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3783  | 13994312 | gi 13994312 ref NP_114137.1  testis transcript Y 13 [Homo sapiens] ref XP_040549.1  testis transcript Y 13 [Homo sapiens] gb AAK13492.1 AF332242_1 (AF332242) transcript Y 13 [Homo sapiens]   | 2.6     |
| 3786  | 1169093  | gi 1169093 sp P45815 CRF1_YARLI COPPER RESISTANCE PROTEIN CRF1 emb CAA80803.1  (Z23265) Product required for copper resistance [Yarrowia lipolytica]   | 7.1     |
| 3787  | 3599476  | gi 3599476 gb AAC69336.1  (AF084637) serendipity alpha protein [Drosophila virilis]  | 2.5     |
| 3793  | 14728817 | gi 14728817 ref XP_047357.1  KIAA0342 gene product [Homo sapiens]  | 9.5     |
| 3795  | 11281706 | gi 11281706 pir B81937 competence protein NMA0906 [imported] - Neisseria meningitidis (group A strain Z2491) emb CAB84183.1  (AL162754) competence protein [Neisseria meningitidis Z2491]  | 5.5     |
| 3797  | 11096149 | gi 11096149 gb AAG30214.1 AF296334_1 (AF296334) collagen-like surface protein [Streptococcus pyogenes]   | 2.4     |
| 3798  | 1827933  | gi 1827933 pdb 1PCA  Procarboxypeptidase A (E.C.3.4.12.2)  | 1.3     |
| 3800  | 6320364  | gi 6320364 ref NP_010444.1  regulator of transporters; Ssy1p [Saccharomyces cerevisiae] sp Q03770 SSY1_YEAST PUTATIVE AMINO-ACID PERMEASE SSY1 pir S57984 probable membrane protein YDR160w - yeast (Saccharomyces cerevisiae) emb CAA90380.1  (Z50046) unknown [Saccharomyces cerevisiae] | 0.92    |
| 3803  | 14973521 | gi 14973521 gb AAK76078.1  (AE007490) ribosomal large subunit pseudouridine synthase, RluD subfamily [Streptococcus pneumoniae]  | 7.4     |
| 3807  | 10834955 | gi 10834955 ref NP_066916.1  ICP4 protein [Gallid herpesvirus 3] dbj BAB16594.1  (AB049735) ICP4 protein [Gallid herpesvirus 3]  | 1.6     |
| 3817  | 13430085 | gi 13430085 gb AAK25738.1 AF291747_1 (AF291747) zinc-finger transcription factor KROX20 [Gallus gallus]  | 0.63    |
| 3822  | 7462422  | gi 7462422 pir A72258 hypothetical protein - Thermotoga maritima (strain MSB8) gb AAD36479.1 AE001793_9 (AE001793) hypothetical protein [Thermotoga maritima]  | 9.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |           |
|---|----------|---|-----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE   |
| 3828  | 7517565  | gi 7517565 pir A70328 hypothetical protein aq_311 - Aquifex aeolicus gb AAC06616.1  (AE000683) putative protein [Aquifex aeolicus]  | 3.7       |
| 3830  | 3924618  | gi 3924618 gb AAC79121.1  (U88902) putative envelope protein [Homo sapiens]   | 0.0000006 |
| 3835  | 7023029  | gi 7023029 dbj BAA91807.1  (AK001647) unnamed protein product [Homo sapiens]  | 4E-80     |
| 3836  | 12698001 | gi 12698001 dbj BAB21819.1  (AB051515) KIAA1728 protein [Homo sapiens]  | 0.0004    |
| 3837  | 5281354  | gi 5281354 gb AAD41491.1 AF136456_1 (AF136456) transcription factor Tcf3b [Danio rerio]   | 5         |
| 3838  | 9628045  | gi 9628045 ref NP_042639.1  ORF 42 [Equine herpesvirus 2] pir S55637 hypothetical protein 42 - equine herpesvirus 2 gb AAC13830.1  (U20824) ORF 42 [Equine herpesvirus 2]   | 7.1       |
| 3839  | 9964462  | gi 9964462 ref NP_064930.1  AMV148 [Amsacta moorei entomopoxvirus] gb AAG02854.1 AF250284_148 (AF250284) AMV148 [Amsacta moorei entomopoxvirus]   | 5.8       |
| 3844  | 13357611 | gi 13357611 ref NP_077885.1  membrane nuclease A - hypothetical [Ureaplasma urealyticum] pir A82939 membrane nuclease A, hypothetical UU055 [imported] - Ureaplasma urealyticum gb AAF30460.1 AE002105_1 (AE002105) membrane nuclease A - hypothetical [Ureaplasma urealyticum] | 2.9       |
| 3845  | 2425188  | gi 2425188 dbj BAA22281.1  (AB007035) FGF receptor 3 [Xenopus laevis]   | 2.5       |
| 3848  | 11351069 | gi 11351069 pir H83232 probable ATP-dependent helicase PA3297 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG06685.1 AE004752_1 (AE004752) probable ATP-dependent helicase [Pseudomonas aeruginosa]  | 4.2       |
| 3850  | 7141304  | gi 7141304 gb AAF37281.1  (AF225702) RSH1 [Arabidopsis thaliana]  | 9.3       |
| 3852  | 11352313 | gi 11352313 pir G83376 probable trehalose synthase PA2152 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG05540.1 AE004642_7 (AE004642) probable trehalose synthase [Pseudomonas aeruginosa]  | 3         |

**Table 3B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3856  | 9453863  | gi 9453863 dbj BAB03284.1  (AB037278) complement C4A [Cyprinus carpio]   | 5.5     |
| 3859  | 11466282 | gi 11466282 ref NP_049597.1  orf1386 [Tetrahymena pyriformis] gb AAD41942.1 AF160864_30 (AF160864) orf1386 [Tetrahymena pyriformis]  | 7.5     |
| 3861  | 9626695  | gi 9626695 ref NP_040967.1  overlapping out-of-phase protein [Eggplant mosaic virus] sp P20129 V70K_EPMV 70 KD PROTEIN gb AAA43038.1  (J04374) overlapping out-of-phase protein [Eggplant mosaic virus]  | 5.6     |
| 3862  | 7473683  | gi 7473683 pir H75456 probable succinate dehydrogenase, hydrophobic subunit SdhD - Deinococcus radiodurans (strain R1) gb AAF10526.1 AE001947_9 (AE001947) succinate dehydrogenase, hydrophobic subunit SdhD, putative [Deinococcus radiodurans] | 5.2     |
| 3864  | 11359953 | gi 11359953 pir T46330 hypothetical protein DKFZp434D0513.1 - human (fragment) emb CAB70660.1  (AL137259) hypothetical protein [Homo sapiens]  | 6E-28   |
| 3867  | 3056600  | gi 3056600 gb AAC13911.1 AAC13911 (AC004255) T1F9.21 [Arabidopsis thaliana]  | 5.5     |
| 3872  | 11358605 | gi 11358605 pir T49882 pectin methyl-esterase-like protein - Arabidopsis thaliana emb CAB87932.1  (AL163912) pectin methyl-esterase-like protein [Arabidopsis thaliana]  | 3.9     |
| 3873  | 5917666  | gi 5917666 gb AAD55980.1 AF159297_1 (AF159297) extensin-like protein [Zea mays]  | 9.2     |
| 3879  | 15011489 | gi 15011489 gb AAK77584.1 AF396436_24 (AF396436) heme maturase [Tetrahymena thermophila]   | 3       |
| 3880  | 5835877  | gi 5835877 ref NP_008647.1 ND2_15072 NADH dehydrogenase subunit 2 [Ceratitis capitata] emb CAB45088.1  (AJ242872) NADH dehydrogenase (ubiquinone) chain 2 [Ceratitis capitata]   | 0.85    |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |            |
|---|----------|--|------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE    |
| 3899  | 11276053 | gi 11276053 gb AAG33872.1 AF319939_1 (AF319939) enhancin [Choristoneura fumiferana granulovirus]   | 3.7        |
| 3904  | 10177870 | gi 10177870 dbj BAB11240.1  (AB010074) potassium/proton antiporter-like protein [Arabidopsis thaliana]   | 2.7        |
| 3907  | 9629709  | gi 9629709 ref NP_045001.1  methyltransferase (MT) and helicase (HEL) domains [Little cherry closterovirus] emb CAA71285.1  (Y10237) methyltransferase (MT) and helicase (HEL) domains [Little cherry closterovirus] | 4.1        |
| 3908  | 14756677 | gi 14756677 ref XP_040326.1  absent in melanoma 1 [Homo sapiens]   | 0.96       |
| 3911  | 9630708  | gi 9630708 ref NP_047255.1  gag-pol precursor polyprotein gPr80 [Feline leukemia virus] gb AAC31801.1  (AF052723) gag-pol precursor polyprotein gPr80 [Feline leukemia virus]  | 0.021      |
| 3913  | 91039    | gi 91039 pir  S04847 leukocyte adhesion protein CD18 precursor - mouse emb CAA33077.1  (X14951) CD18 antigen preprotein [Mus musculus]   | 4.6        |
| 3916  | 5107943  | gi 5107943 gb AAD40185.1 AF157488_1 (AF157488) 36DE accessory gland protein [Drosophila melanogaster] gb AAF53664.1  (AE003658) Acp36DE gene product [Drosophila melanogaster]                                       | 5.8        |
| 3919  | 4809000  | gi 4809000 gb AAD30054.1  (AF133052) pol polyprotein [walleye epidermal hyperplasia virus type 2]  | 0.000004   |
| 3920  | 7262603  | gi 7262603 gb AAF43901.1 AF162134_1 (AF162134) immunoglobulin epsilon heavy chain constant region [Felis catus]  | 8.9        |
| 3927  | 12963481 | gi 12963481 ref NP_061927.1  hypothetical protein MGC5560; hypothetical protein [Homo sapiens] dbj BAB14342.1  (AK022978) unnamed protein product [Homo sapiens]   | 2E-66      |
| 3929  | 13651251 | gi 13651251 ref XP_017240.1  15060 [Homo sapiens]  | 0.00000003 |
| 3930  | 11466329 | gi 11466329 ref NP_051157.1  ATP synthase F0 subunit 6 [Cafeteria roenbergensis] gb AAF05808.1 AF193903_31 (AF193903) ATP synthase F0 subunit 6 [Cafeteria roenbergensis]  | 8.3        |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3933  | 7452186  | gi 7452186 pir  S75936 hypothetical protein slr0023 - Synechocystis sp. (strain PCC 6803) dbj BAA10783.1  (D64006) ORF_ID:slr0023~unknown protein [Synechocystis sp. PCC 6803]   | 7.7     |
| 3935  | 12720861 | gi 12720861 gb AAK02675.1  (AE006095) unknown [Pasteurella multocida]  | 1.2     |
| 3937  | 8919178  | gi 8919178 emb CAB96077.1  (AJ277244) alpha-glucosidase [Solanum tuberosum subsp. tuberosum]   | 5.7     |
| 3938  | 12830385 | gi 12830385 emb CAC29069.1  (AJ408289) immunoglobulin lambda light chain variable region [Homo sapiens]  | 2.1     |
| 3942  | 13385576 | gi 13385576 ref NP_080353.1  RIKEN cDNA 3110040N11 gene [Mus musculus] dbj BAB29184.1  (AK014163) putative [Mus musculus] dbj BAB31031.1  (AK018003) putative [Mus musculus] dbj BAB31634.1  (AK019261) putative [Mus musculus]  | 5E-48   |
| 3945  | 13476785 | gi 13476785 ref NP_108354.1  transcription regulator [Mesorhizobium loti] dbj BAB53815.1  (AP003013) transcription regulator [Mesorhizobium loti]  | 5.6     |
| 3947  | 13357649 | gi 13357649 ref NP_077923.1  unique hypothetical membrane lipoprotein [Ureaplasma urealyticum] pir  E82934 hypothetical protein UU092 [imported] - Ureaplasma urealyticum gb AAF30498.1 AE002109_1 (AE002109) unique hypothetical membrane lipoprotein [Ureaplasma urealyticum]                              | 4.1     |
| 3951  | 13358144 | gi 13358144 ref NP_078418.1  conserved hypothetical membrane lipoprotein [Ureaplasma urealyticum] pir  G82873 conserved hypothetical membrane lipoprotein UU579 [imported] - Ureaplasma urealyticum gb AAF30993.1 AE002156_8 (AE002156) conserved hypothetical membrane lipoprotein [Ureaplasma urealyticum] | 8.1     |
| 3956  | 7299437  | gi 7299437 gb AAF54626.1  (AE003691) KP78b gene product [Drosophila melanogaster]  | 5.5     |
| 3961  | 6729023  | gi 6729023 gb AAF27019.1 AC009177_9 (AC009177) hypothetical protein [Arabidopsis thaliana]   | 9.8     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 3962  | 2645329  | gi 2645329 gb AAB87213.1  (U83821) NADH dehydrogenase subunit 4 [Oryzomys palustris]   | 6.6     |
| 3965  | 11280919 | gi 11280919 pir T46939 hypothetical protein 1 [imported] - Agrobacterium tumefaciens plasmid pAtK84b gb AAD31598.1 AF065244_2 (AF065244) unknown [Agrobacterium tumefaciens]                             | 0.33    |
| 3966  | 7305249  | gi 7305249 ref NP_038748.1  MAX-interacting protein [Mus musculus] gb AAF24761.1  (AF205935) MGA protein [Mus musculus]  | 3E-51   |
| 3969  | 5901753  | gi 5901753 gb AAD55397.1  (AF177905) hypothetical protein [Candida glabrata]   | 1.6     |
| 3973  | 9635492  | gi 9635492 ref NP_059583.1  gtrA [Enterobacteria phage P22] sp P57021 GTRA_BPP22 BACTOPRENOL-LINKED GLUCOSE TRANSLOCASE gb AAF75001.1  (AF217253) gtrA [Enterobacteria phage P22]                        | 4       |
| 3975  | 2143428  | gi 2143428 pir I58123 aggrecan - mouse (fragment) gb AAB32159.1  (S73720) aggrecan=cmd(aggrecan) [mice, cmd/cmd, liver, Peptide Partial Mutant, 112 aa] [Mus sp.]  | 3.3     |
| 3979  | 14767565 | gi 14767565 ref XP_027089.1  N-acetylated alpha-linked acidic dipeptidase 2 [Homo sapiens] emb CAB39967.1  (AJ012370) NAALADase II protein [Homo sapiens]  | 1.3     |
| 3980  | 11359267 | gi 11359267 pir T50192 probable pseudouridylate synthase [imported] - fission yeast (Schizosaccharomyces pombe) emb CAB61771.1  (AL133225) probable pseudouridylate synthase [Schizosaccharomyces pombe] | 1.7     |
| 3982  | 13652498 | gi 13652498 ref XP_007053.3  tubby like protein 3 [Homo sapiens] ref XP_045148.1  8937 [Homo sapiens]  | 5.1     |
| 3983  | 9978891  | gi 9978891 sp P57059 SN1L_HUMAN PROBABLE SERINE/THREONINE PROTEIN KINASE SNF1LK dbj BAA95536.1  (AP001751) gene similar to rat protein kinase (KID2) [Homo sapiens]                                      | 1.6     |
| 3986  | 7448436  | gi 7448436 pir E71674 hypothetical protein RP682 - Rickettsia prowazekii emb CAA15119.1  (AJ235272) unknown [Rickettsia prowazekii]  | 2.2     |
| 3987  | 13815874 | gi 13815874 gb AAK42697.1  (AE006854) Hypothetical protein [Sulfolobus solfataricus]   | 3.8     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 3989  | 7485330  | gi 7485330 pir  T04802 hypothetical protein F10M23.130 - Arabidopsis thaliana emb CAB36525.1  (AL035440) putative APG protein [Arabidopsis thaliana] emb CAB79534.1  (AL161565) putative APG protein [Arabidopsis thaliana]   | 4.5     |
| 3991  | 7295073  | gi 7295073 gb AAF50399.1  (AE003555) Talin gene product [Drosophila melanogaster] gb AAG22814.1  (AF299248) talin [Drosophila melanogaster]   | 3.8     |
| 3992  | 14456133 | gi 14456133 emb CAC41650.1  (AJ315577) putative nitrate reductase [Ustilago maydis]   | 8       |
| 3993  | 533179   | gi 533179 gb AAA56944.1  (L33090) pol protein [Human immunodeficiency virus type 2]   | 7.4     |
| 3996  | 14250408 | gi 14250408 gb AAH08638.1 AAH08638 (BC008638) Similar to aspartyl-tRNA synthetase [Mus musculus]  | 4.1     |
| 4000  | 14775307 | gi 14775307 ref XP_042250.1  similar to nuclear pore complex interacting protein (H. sapiens) [Homo sapiens]  | 3.5     |
| 4002  | 7507695  | gi 7507695 pir  T24847 hypothetical protein T11G6.7 - Caenorhabditis elegans emb CAA93415.1  (Z69384) predicted using Genefinder [Caenorhabditis elegans]   | 8.3     |
| 4008  | 1173359  | gi 1173359 sp P45287 SAPC_HAEIN PEPTIDE TRANSPORT SYSTEM PERMEASE PROTEIN SAPC pir  C64134 sapC protein homolog - Haemophilus influenzae (strain Rd KW20) gb AAC23287.1  (U32837) peptide ABC transporter, permease protein (sapC) [Haemophilus influenzae Rd]      | 0.83    |
| 4009  | 13385538 | gi 13385538 ref NP_080316.1  RIKEN cDNA 2810036K01 gene [Mus musculus] dbj BAB28520.1  (AK012865) putative [Mus musculus]   | 1E-41   |
| 4011  | 13639013 | gi 13639013 ref XP_012007.2  dual specificity phosphatase 8 [Homo sapiens]  | 9.1     |
| 4015  | 1079359  | gi 1079359 pir  JC2394 phospholipase A2 inhibitor 25K chain - monocled cobra gb AAB32583.1  phospholipase A2 25 kda subunit, PLA2 25 kda subunit=urokinase-type plasminogen activator receptor homolog [Naja naja kaouthia=Thailand cobras, blood, Peptide, 185 aa] | 5       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4016  | 284079   | gi 284079 pir  E41925 hypothetical protein 3 - human gb AAA58464.1  (M69297) ORF 3 [Homo sapiens]   | 0.005   |
| 4017  | 7293601  | gi 7293601 gb AAF48973.1  (AE003512) CG14217 gene product [Drosophila melanogaster]   | 2.9     |
| 4020  | 11352313 | gi 11352313 pir  G83376 probable trehalose synthase PA2152 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG05540.1 AE004642_7 (AE004642) probable trehalose synthase [Pseudomonas aeruginosa]   | 2.9     |
| 4023  | 11386701 | gi 11386701 sp Q9V773 C6AK_DROME PROBABLE CYTOCHROME P450 6A20 (CYPVIA20)   | 9       |
| 4030  | 7332064  | gi 7332064 gb AAF60751.1  (AC006801) contains similarity to Loligo pealei microtubule-associated protein H1 (PIR:S28831) [Caenorhabditis elegans]   | 1.7     |
| 4034  | 13242494 | gi 13242494 ref NP_077507.1  EsV-1-22 [Ectocarpus siliculosus virus]  | 1.6     |
| 4035  | 7522108  | gi 7522108 pir  T29097 pro-pol-dUTPase polyprotein - murine endogenous retrovirus ERV-L (fragment) emb CAA73251.1  (Y12713) protease; reverse transcriptase; RNaseH; integrase; dUTPase; Pro-Pol-dUTPase polyprotein [Mus musculus]   | 0.025   |
| 4042  | 12045115 | gi 12045115 ref NP_072926.1  lipoprotein, putative [Mycoplasma genitalium] sp P47502 Y260_MYCGE HYPOTHETICAL LIPOPROTEIN MG260 PRECURSOR pir  G64228 hypothetical protein homolog MG260 - Mycoplasma genitalium gb AAC71481.1  (U39705) lipoprotein, putative [Mycoplasma genitalium] | 3.2     |
| 4044  | 14249544 | gi 14249544 ref NP_116223.1  hypothetical protein FLJ14751 [Homo sapiens] dbj BAB55272.1  (AK027657) unnamed protein product [Homo sapiens]   | 0.27    |
| 4046  | 6474685  | gi 6474685 dbj BAA87286.1  (AB027982) Protein kinase C-like 1 [Schizosaccharomyces pombe]   | 1.9     |
| 4049  | 1514669  | gi 1514669 emb CAA87082.1  (Z46958) adenyl cyclase [Xenopus laevis]   | 0.56    |
| 4050  | 1514669  | gi 1514669 emb CAA87082.1  (Z46958) adenyl cyclase [Xenopus laevis]   | 0.85    |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4051  | 2499547  | gi 2499547 sp P77153 WZB_ECOLI PROBABLE LOW MOLECULAR WEIGHT PROTEIN-TYROSINE-PHOSPHATASE WZB pir D64972 probable protein-tyrosine-phosphatase (EC 3.1.3.48) wzb, low molecular weight - Escherichia coli gb AAC77834.1  (U38473) putative acid phosphatase [Escherichia coli] gb AAC75122.1  (AE000296) probable protein-tyrosine-phosphatase [Escherichia coli K12] gb AAG57121.1 AE005432_2 (AE005432) probable protein-tyrosine-phosphatase [Escherichia coli O157:H7 EDL933] dbj BAB36289.1  (AP002560) probable protein-tyrosine-phosphatase [Escherichia coli O157:H7] | 2.8     |
| 4052  | 14916565 | gi 14916565 sp Q9XHG2 FLS_MALDO FLAVONOL SYNTHASE (FLS) gb AAD26261.1 AF119095_1 (AF119095) flavonol synthase [Malus x domestica]   | 3.8     |
| 4053  | 3769667  | gi 3769667 gb AAC64604.1  (AF093797) unknown [Norwalk virus]  | 2.8     |
| 4060  | 14335082 | gi 14335082 gb AAK59820.1  (AY037220) AT4g24060/T19F6_50 [Arabidopsis thaliana]   | 1.3     |
| 4061  | 12838540 | gi 12838540 dbj BAB24237.1  (AK005786) putative [Mus musculus]  | 4.3     |
| 4066  | 7549797  | gi 7549797 ref NP_035731.1  T lymphoma oncogene [Mus musculus] sp P17408 TLM_MOUSE TLM PROTEIN (TLM ONCOGENE) pir S10151 transforming protein tlm - mouse (strain balb/c) emb CAA36859.1  (X52634) tlm protein [Mus musculus]   | 0.58    |
| 4067  | 11357726 | gi 11357726 pir T51437 hypothetical protein F2G14_40 - Arabidopsis thaliana emb CAC01811.1  (AL391146) putative protein [Arabidopsis thaliana] gb AAK49610.1 AF372894_1 (AF372894) AT5g14920/F2G14_40 [Arabidopsis thaliana] gb AAK74054.1  (AY045696) AT5g14920/F2G14_40 [Arabidopsis thaliana]  | 1.8     |
| 4070  | 8218109  | gi 8218109 emb CAB92762.1  (AL121883) dJ545K15.1.3 (novel protein similar to KIAA0512 (contains translation of cDNAs Em:AK000818 and Em:L20773) (isoform 3)) [Homo sapiens]   | 5.5     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4072  | 13096854 | gi 13096854 gb AAH03224.1 AAH03224 (BC003224) Similar to chromosome condensation 1-like [Mus musculus]   | 9.1     |
| 4073  | 103076   | gi 103076 pir B21124 Bkm-like sex-determining region hypothetical protein CS314 - fruit fly (Drosophila melanogaster) (fragment)   | 0.3     |
| 4074  | 14722732 | gi 14722732 ref XP_017441.2  hypothetical protein FLJ21477 [Homo sapiens]  | 6.6     |
| 4076  | 3378554  | gi 3378554 emb CAA76192.1  (Y16404) multidrug resistance protein [Candida albicans]  | 0.33    |
| 4081  | 6983946  | gi 6983946 gb AAF34740.1 AF200327_1 (AF200327) unknown [Plasmodium chabaudi]   | 8.5     |
| 4082  | 5524754  | gi 5524754 emb CAB50786.1  (AJ011801) Rx protein [Solanum tuberosum]   | 2.6     |
| 4086  | 7959271  | gi 7959271 dbj BAA96029.1  (AB040938) KIAA1505 protein [Homo sapiens]  | 3E-58   |
| 4087  | 130687   | gi 130687 sp P27536 POST_XENLA POSTERIOR PROTEIN pir A43784 Xpo protein - African clawed frog emb CAA41397.1  (X58487) Xpo [Xenopus laevis]  | 1.2     |
| 4092  | 2406633  | gi 2406633 gb AAB70469.1  (AF005630) adenylyl cyclase isoform DAC9 [Drosophila melanogaster]   | 7.3     |
| 4095  | 13812388 | gi 13812388 ref NP_113506.1  cell division cycle 2 homolog [Guillardia theta] emb CAC27075.1  (AJ010592) cell division cycle 2 homolog [Guillardia theta]  | 9.7     |
| 4096  | 14530932 | gi 14530932 gb AAG37978.2  (AC087081) Hypothetical protein Y82E9BL.13 [Caenorhabditis elegans]   | 3.1     |
| 4097  | 14760316 | gi 14760316 ref XP_045601.1  7324 [Homo sapiens]   | 0.83    |
| 4098  | 7305361  | gi 7305361 ref NP_038652.1  otogelin [Mus musculus] pir T42214 otogelin - mouse gb AAB96561.1  (U96411) otogelin; MLEMP [Mus musculus]   | 1E-10   |
| 4103  | 8953656  | gi 8953656 emb CAB96704.1  (AL360354) vir15, rpg1, putative transmembrane protein, similar to rpg2, vir9 MW:34499 (294 aa), fasta scores: opt: 398, E(): 0.023, 26.0% identity in 289 aa overlap, and to vir2: MW:35019 (292 aa), fasta scores: opt: 380, E(): 0.037, 28.0% identity in> | 3.6     |
| 4108  | 3659615  | gi 3659615 gb AAC61684.1  (AF052517) diguanylate cyclase [Gluconacetobacter xylinus]   | 6.5     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4110  | 11465871 | gi 11465871 ref NP_066420.1  NADH dehydrogenase subunit 2 [Ochromonas danica]<br>gb AAG18386.1 AF287134_11 (AF287134) NADH dehydrogenase subunit 2 [Ochromonas danica]  | 9.3     |
| 4112  | 13786586 | gi 13786586 ref NP_112718.1  ORF55 [Bacteriophage TP901-1] gb AAK38072.1  (AF304433) ORF55 [Bacteriophage TP901-1]  | 1.4     |
| 4115  | 14743649 | gi 14743649 ref XP_036116.1  KIAA0594 protein [Homo sapiens]  | 2E-46   |
| 4121  | 7491991  | gi 7491991 pir  T41608 hypothetical protein SPCC790.03 - fission yeast (Schizosaccharomyces pombe) emb CAA21293.1  (AL031855) hypothetical protein [Schizosaccharomyces pombe]  | 2.9     |
| 4122  | 6647413  | gi 6647413 sp Q9ZE52 ALR_RICPR ALANINE RACEMASE pir  F71718 alanine racemase (alr) RP095 - Rickettsia prowazekii emb CAA14565.1  (AJ235270) ALANINE RACEMASE (alr) [Rickettsia prowazekii]  | 9.1     |
| 4125  | 7293814  | gi 7293814 gb AAF49181.1  (AE003517) nes gene product [Drosophila melanogaster]   | 7.7     |
| 4128  | 7505316  | gi 7505316 pir  T23351 hypothetical protein K05D4.2 - Caenorhabditis elegans emb CAB07252.1  (Z92804) contains similarity to Pfam domain: PF01461 (7TM chemoreceptor), Score=118.9, E-value=3.1e-32, N=1 [Caenorhabditis elegans]                               | 9.3     |
| 4139  | 4335719  | gi 4335719 gb AAD17397.1  (AC006248) putative C3HC4-type RING zinc finger protein [Arabidopsis thaliana]  | 5.1     |
| 4140  | 9625775  | gi 9625775 ref NP_040024.1  Conserved herpesvirus spliced gene [human herpesvirus 5]<br>sp P16732 VTER_HCMVA PROBABLE DNA PACKAGING PROTEIN emb CAA35363.1  (X17403) Conserved herpesvirus spliced gene [human herpesvirus 5]                                   | 4.3     |
| 4144  | 7510388  | gi 7510388 pir  T27298 hypothetical protein Y68A4A.7 - Caenorhabditis elegans emb CAA16418.1  (AL021503) predicted using Genefinder~contains similarity to Pfam domain: PF01604 (7TM chemoreceptor), Score=-48.3, E-value=7.1e-07, N=1 [Caenorhabditis elegans] | 3.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4145  | 7243081  | gi 7243081 dbj BAA92588.1  (AB037771) KIAA1350 protein [Homo sapiens]   | e-112   |
| 4149  | 13812221 | gi 13812221 ref NP_113352.1  hypothetical protein [Guillardia theta] gb AAK39908.1 AF165818_116 (AF165818) hypothetical protein [Guillardia theta]  | 5.1     |
| 4150  | 7706557  | gi 7706557 ref NP_057604.1  hepatocellular carcinoma-associated antigen 59; hypothetical protein [Homo sapiens] ref XP_017552.1  hypothetical protein [Homo sapiens] ref XP_052691.1  hypothetical protein [Homo sapiens] gb AAF37561.1  (AF218421) hepatocellular carcinoma-associated antigen 59 [Homo sapiens] gb AAH07664.1 AAH07664 (BC007664) hepatocellular carcinoma-associated antigen 59 [Homo sapiens] | 3E-81   |
| 4151  | 984305   | gi 984305 gb AAA75468.1  (U25975) hPAK65 [Homo sapiens]   | 1E-11   |
| 4153  | 14729667 | gi 14729667 ref XP_029101.1  KIAA0947 protein [Homo sapiens]  | 0.47    |
| 4154  | 3355648  | gi 3355648 emb CAA08785.1  (AJ009688) tungsten formylmethanofuran dehydrogenase subunit fwdB [Methanothermobacter wolfeii]  | 0.54    |
| 4156  | 12513192 | gi 12513192 gb AAG54704.1 AE005215_1 (AE005215) putative transport protein [Escherichia coli O157:H7 EDL933] dbj BAB33831.1  (AP002551) putative transport protein [Escherichia coli O157:H7]   | 4.1     |
| 4159  | 7472450  | gi 7472450 pir D75370 hypothetical protein - Deinococcus radiodurans (strain R1) gb AAF11218.1 AE002008_13 (AE002008) hypothetical protein [Deinococcus radiodurans]  | 7.9     |
| 4160  | 13876525 | gi 13876525 gb AAK43501.1 AC020666_11 (AC020666) hypothetical protein [Oryza sativa]  | 4.6     |
| 4162  | 6665675  | gi 6665675 gb AAF22966.1 AF175308_1 (AF175308) acetyl-CoA carboxylase [Sus scrofa]  | 2E-11   |
| 4163  | 7509105  | gi 7509105 pir T31728 probable cysteine proteinase (EC 3.4.22.-) W07B8.4 - Caenorhabditis elegans gb AAB65345.1  (AF016426) Hypothetical protein W07B8.4 [Caenorhabditis elegans]   | 1.4     |
| 4164  | 7510169  | gi 7510169 pir T31555 hypothetical protein Y53H1C.2 - Caenorhabditis elegans emb CAB55064.1  (AL117201) predicted using Genefinder [Caenorhabditis elegans]   | 7       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4166  | 6683126  | gi 6683126 dbj BAA20797.2  (AB002337) KIAA0339 protein [Homo sapiens]   | 9.8     |
| 4167  | 7485930  | gi 7485930 pir  T10623 hypothetical protein F21C20.160 - Arabidopsis thaliana emb CAB45847.1  (AL080254) putative protein [Arabidopsis thaliana] emb CAB79081.1  (AL161553) putative protein [Arabidopsis thaliana]   | 5.9     |
| 4171  | 11348277 | gi 11348277 pir  C83019 conserved hypothetical protein PA5019 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG08404.1 AE004914_5 (AE004914) conserved hypothetical protein [Pseudomonas aeruginosa]   | 3.5     |
| 4172  | 1150480  | gi 1150480 emb CAA91110.1  (Z54312) hypothetical protein [Lactobacillus sakei]  | 3.2     |
| 4173  | 14776432 | gi 14776432 ref XP_050788.1  similar to KIAA0133 gene product (H. sapiens) [Homo sapiens]   | 0.3     |
| 4175  | 13569915 | gi 13569915 ref NP_112205.1  amnionless protein [Homo sapiens] gb AAK28532.1 AF328788_1 (AF328788) amnionless [Homo sapiens]  | 8.9     |
| 4180  | 6978481  | gi 6978481 ref NP_036905.1  a-kinase anchoring protein [Rattus norvegicus] sp Q62924 AK11_RAT A KINASE ANCHOR PROTEIN 11 (PROTEIN KINASE A ANCHORING PROTEIN 11) (PRKA11) (A KINASE ANCHOR PROTEIN 220 KDA) (AKAP 220) pir  T42732 A-kinase anchoring protein AKAP 220 - rat gb AAB06559.1  (U48288) AKAP 220 [Rattus norvegicus] | 3.1     |
| 4187  | 14738118 | gi 14738118 ref XP_048649.1  Apobec-1 complementation factor; APOBEC-1 stimulating protein [Homo sapiens] emb CAB94754.1  (AJ272078) APOBEC-1 stimulating protein [Homo sapiens]  | 1E-37   |
| 4189  | 13183342 | gi 13183342 gb AAK15157.1 AF284034_1 (AF284034) vitellogenin B [Melanogrammus aeglefinus]   | 9.4     |

[illegible]

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4192  | 13123985 | gi 13123985 sp Q9N293 B3G5_GORGO BETA-1,3-GALACTOSYLTRANSFERASE 5 (BETA-1,3-GALTASE 5) (BETA3GAL-T5) (B3GAL-T5) (UDP-GALACTOSE:BETA-N-ACETYLGLUCOSAMINE BETA-1,3-GALACTOSYLTRANSFERASE 5) (UDP-GAL:BETA-GLCNAC BETA-1,3-GALACTOSYLTRANSFERASE 5) (BETA-3-GX-T5) dbj BAA94501.1  (AB041416) UDP-Gal:GlcNAc beta 1,3-galactosyltransferase 5 [Homo sapiens]  | 4       |
| 4194  | 7295768  | gi 7295768 gb AAF51070.1  (AE003579) CG3410 gene product [Drosophila melanogaster]   | 1.5     |
| 4195  | 7290544  | gi 7290544 gb AAF45996.1  (AE003432) CG6903 gene product [Drosophila melanogaster]   | 6       |
| 4200  | 9966502  | gi 9966502 gb AAG10295.1 AF275272_1 (AF275272) unknown [Schizophyllum commune]   | 0.83    |
| 4213  | 6010435  | gi 6010435 gb AAF01135.1  (AF087699) erythrocyte membrane protein 3 [Plasmodium falciparum]  | 2.2     |
| 4216  | 14775884 | gi 14775884 ref XP_043964.1  similar to KIAA0220 protein (H. sapiens) [Homo sapiens]   | 5E-12   |
| 4218  | 7511578  | gi 7511578 pir T19209 probable protein kinase E02H4.3 - Caenorhabditis elegans emb CAA94122.1  (Z70205) Similarity to Drosophila Doa kinase (PIR Acc. No. S44077), contains similarity to Pfam domain: PF00069 (Eukaryotic protein kinase domain), Score=184.6, E-value=5.2e-52, N=1~cDNA EST yk5d6.3 comes from this gene~cDNA EST yk5d6.5 comes from this> emb CAA91979.1  (Z68003) Similarity to Drosophila Doa kinase (PIR Acc. No. S44077), contains similarity to Pfam domain: PF00069 (Eukaryotic protein kinase domain), Score=184.6, E-value=5.2e-52, N=1~cDNA EST yk5d6.3 comes from this gene~cDNA EST yk5d6.5 comes from this> | 0.069   |
| 4220  | 7471938  | gi 7471938 pir G75366 glucose-1-phosphate adenylyltransferase - Deinococcus radiodurans (strain R1) gb AAF11244.1 AE002010_7 (AE002010) glucose-1-phosphate adenylyltransferase [Deinococcus radiodurans]  | 2.6     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4224  | 4506051  | gi 4506051 ref NP_000937.1  primase, polypeptide 1 (49kD); primase polypeptide 1 (49kD) [Homo sapiens] ref XP_048930.1  primase, polypeptide 1 (49kD) [Homo sapiens] ref XP_006706.3  primase, polypeptide 1 (49kD) [Homo sapiens] sp P49642 PRI1_HUMAN DNA PRIMASE SMALL SUBUNIT (DNA PRIMASE 49 KDA SUBUNIT) (P49) pir  S45630 DNA primase chain p48 - human emb CAA52377.1  (X74330) DNA primase (subunit p48) [Homo sapiens] gb AAH05266.1 AAH05266 (BC005266) primase, polypeptide 1 (49kD) [Homo sapiens] | 0.014   |
| 4228  | 13812048 | gi 13812048 ref NP_113182.1  putative protein kinase [Guillardia theta] gb AAK39750.1 AF083031_107 (AF083031) putative protein kinase [Guillardia theta]  | 1.8     |
| 4229  | 7465475  | gi 7465475 pir  S70173 autoinducer synthesis protein - Pseudomonas aeruginosa   | 1.3     |
| 4236  | 11288518 | gi 11288518 pir  T49586 related to nif-specific regulatory protein [imported] - Neurospora crassa emb CAB91387.1  (AL355930) related to nif-specific regulatory protein [Neurospora crassa]   | 6.8     |
| 4237  | 2072951  | gi 2072951 gb AAC51263.1  (U93564) putative p150 [Homo sapiens]   | 3.1     |
| 4244  | 1903416  | gi 1903416 gb AAC53095.1  (U76112) translation repressor NAT1 [Mus musculus]  | 2E-15   |
| 4248  | 14749171 | gi 14749171 ref XP_038309.1  hypothetical protein XP_038309 [Homo sapiens]  | 4.3     |
| 4251  | 7432367  | gi 7432367 pir  T13881 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Chlorogonium elongatum mitochondrion emb CAA73990.1  (Y13644) NADH dehydrogenase subunit 4 [Chlorogonium elongatum]   | 1.2     |
| 4255  | 13621755 | gi 13621755 gb AAK33536.1  (AE006511) putative nucleotide sugar dehydrogenase [Streptococcus pyogenes M1 GAS]   | 2.7     |
| 4259  | 9880     | gi 9880 emb CAA36427.1  (X52177) RNA polymerase beta subunit (697 AA) [Plasmodium falciparum]   | 1.1     |
| 4260  | 10314010 | gi 10314010 ref NP_066241.1  replicase polyprotein [acute bee paralysis virus] gb AAG13118.1 AF150629_1 (AF150629) replicase polyprotein [acute bee paralysis virus]  | 7.5     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4261  | 1170902  | gi 1170902 sp P43245 MDR1_RAT MULTIDRUG RESISTANCE PROTEIN 1 (P-GLYCOPROTEIN 1)<br>pir  JH0502 p-glycoprotein - rat  | 5.2     |
| 4265  | 10180785 | gi 10180785 gb AAG14273.1 AF243438_88 (AF243438) RS1 immediate-early gene transactivator-like protein [Gallid herpesvirus 2]<br>gb AAG14284.1 AF243438_99 (AF243438) RS1 immediate-early gene transactivator ICP4-like protein [Gallid herpesvirus 2]  | 1.3     |
| 4267  | 1353257  | gi 1353257 gb AAB06234.1  (U26665) dimethyl sulphoxide reductase subunit B [Haemophilus influenzae]  | 4.8     |
| 4268  | 4240315  | gi 4240315 dbj BAA74936.1  (AB020720) KIAA0913 protein [Homo sapiens]  | 3.3     |
| 4269  | 4493991  | gi 4493991 emb CAB39050.1  (AL034559) hypothetical protein, PFC1060c [Plasmodium falciparum]   | 6.3     |
| 4272  | 4557503  | gi 4557503 ref NP_001072.1  cubilin precursor; cubilin; intrinsic factor-cobalamin receptor; intrinsic factor B12-receptor [Homo sapiens] pir  T09456 intrinsic factor-B12 receptor Cubilin precursor - human<br>gb AAC82612.1  (AF034611) intrinsic factor-B12 receptor precursor; cubilin [Homo sapiens]   | 5E-10   |
| 4277  | 7504212  | gi 7504212 pir  T22670 hypothetical protein F54F11.1 - Caenorhabditis elegans emb CAB05738.1  (Z83229)<br>Weak similarity with glycerol phospholipid-cholesterol acyltransferase~cDNA EST yk479h12.3 comes from this gene~cDNA EST yk479h12.5 comes from this gene [Caenorhabditis elegans]  | 8       |
| 4279  | 421548   | gi 421548 pir  B47013 butanol dehydrogenase (EC 1.1.1. ) II - Clostridium acetobutylicum   | 1.7     |
| 4284  | 7497553  | gi 7497553 pir  T19999 hypothetical protein C47D12.2 - Caenorhabditis elegans emb CAA93767.1  (Z69902)<br>predicted using Genefinder~cDNA EST yk14e2.3 comes from this gene~cDNA EST yk88e3.3 comes from this gene~cDNA EST yk132h1.3 comes from this gene~cDNA EST yk88e3.5 comes from this gene~cDNA EST yk132h1.5 comes from this gene~cDNA EST yk422c3.3 > | 6.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |             |
|---|----------|--|-------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE     |
| 4292  | 5042237  | gi 5042237 emb CAB44655.1  (Y18605) hypothetical protein RvD1-Rv2024c' [Mycobacterium bovis BCG] gb AAK46361.1  (AE007059) helicase, putative/conserved hypothetical protein [Mycobacterium tuberculosis CDC1551]  | 6.3         |
| 4298  | 14746217 | gi 14746217 ref XP_011563.2  hypothetical protein FLJ21634 [Homo sapiens] dbj BAB15338.1  (AK026056) unnamed protein product [Homo sapiens]  | 0.000000002 |
| 4299  | 6005978  | gi 6005978 ref NP_009098.1  zinc finger protein 258 [Homo sapiens] gb AAD15797.1  (AF055470) ZNF258 [Homo sapiens]   | 9E-26       |
| 4303  | 9845291  | gi 9845291 ref NP_063945.1  phosphatidylinositol polyphosphate 5-phosphatase type IV [Homo sapiens] gb AAF81404.1 AF187891_1 (AF187891) phosphatidylinositol polyphosphate 5-phosphatase type IV [Homo sapiens]  | 7.7         |
| 4305  | 13620879 | gi 13620879 dbj BAB40992.1  (AB049938) alpha1,3-fucosyltransferase [Rattus norvegicus]   | 2.7         |
| 4308  | 6424813  | gi 6424813 gb AAF08148.1  (AF130192) NADH dehydrogenase subunit F [Valeriana fauriei]  | 9.6         |
| 4311  | 5834894  | gi 5834894 ref NP_006964.1 ND5_10021 NADH dehydrogenase subunit 5 [Caenorhabditis elegans] sp P24896 NU5M_CAEEL NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 5 pir S26037 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 5 - Caenorhabditis elegans mitochondrion emb CAA38162.1  (X54252) ND5 protein (AA 1 - 527) [Caenorhabditis elegans] | 1.6         |
| 4314  | 11135954 | gi 11135954 sp Q9TC94 YM16_NEPOL HYPOTHETICAL PROTEIN YMF16 gb AAF03203.1 AF110138_35 (AF110138) homolog of E. coli MttB, a protein involved in folded protein translocation and targeting across bacterial membranes [Nephroselmis olivacea]  | 2.2         |
| 4316  | 14089831 | gi 14089831 emb CAC13590.1  (AL445564) unknown; predicted coding region [Mycoplasma pulmonis]  | 6.5         |
| 4317  | 10728595 | gi 10728595 gb AAF52302.2  (AE003611) CG9011 gene product [Drosophila melanogaster]  | 4E-19       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4318  | 9187479  | gi 9187479 emb CAB96962.1  (AJ007508) magnesium-chelataase subunit chlI [Gnetum gnemon]   | 2.4     |
| 4322  | 7469635  | gi 7469635 pir  S76563 hypothetical protein - Synechocystis sp. (strain PCC 6803) dbj BAA10409.1  (D64002) ORF_ID:sll0188~unknown protein [Synechocystis sp. PCC 6803]  | 1.6     |
| 4324  | 15021476 | gi 15021476 gb AAK77753.1 AF369029_84 (AF369029) ORF84 [white spot syndrome virus]  | 1.7     |
| 4333  | 11466210 | gi 11466210 ref NP_066533.1  NADH dehydrogenase subunit 2 [Naegleria gruberi]<br>gb AAG17811.1 AF288092_36 (AF288092) NADH dehydrogenase subunit 2 [Naegleria gruberi]  | 0.46    |
| 4336  | 127494   | gi 127494 sp P25127 MT_ESOLU METALLOTHIONEIN (MT) pir  S17175 Metallothionein - Northern pike pir  S38334 metallothionein - northern pike pir  S31723 metallothionein - northern pike emb CAA42035.1  (X59392) metallothionein [Esox lucius] emb CAA49636.1  (X70042) Metallothionein [Esox lucius]   | 1       |
| 4341  | 6009729  | gi 6009729 dbj BAA85039.1  (AB026129) alpha-2-macroglobulin-2 [Cyprinus carpio]   | 0.00002 |
| 4342  | 1170606  | gi 1170606 sp P43188 KADC_MAIZE ADENYLATE KINASE, CHLOROPLAST (ATP-AMP TRANSPHOSPHORYLASE) pir  S45634 adenylate kinase (EC 2.7.4.3), chloroplast - maize pdb 1ZAK A Chain A, Adenylate Kinase From Maize In Complex With The Inhibitor P1,P5-Bis(Adenosine-5'-)pentaphosphate (Ap5a) pdb 1ZAK B Chain B, Adenylate Kinase From Maize In Complex With The Inhibitor P1,P5-Bis(Adenosine-5'-)pentaphosphate (Ap5a) | 5E-13   |
| 4345  | 543537   | gi 543537 pir  JN0720 glucosyl transferase - Shigella flexneri phage X gb AAA71895.1  (L05001) glucosyl transferase [bacteriophage Sfx]   | 8.1     |
| 4347  | 7297011  | gi 7297011 gb AAF52281.1  (AE003611) CG11149 gene product [Drosophila melanogaster]   | 0.93    |
| 4348  | 11558496 | gi 11558496 emb CAC17816.1  (AJ276292) sodium iodide symporter [Sus scrofa]   | 2.6     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4351  | 7293017  | gi 7293017 gb AAF48404.1  (AE003497) CG12398 gene product [ <i>Drosophila melanogaster</i> ]   | 9       |
| 4352  | 7486021  | gi 7486021 pir T06133 hypothetical protein F23E12.200 - <i>Arabidopsis thaliana</i> emb CAA18745.1  (AL022604) putative protein [ <i>Arabidopsis thaliana</i> ] emb CAB80241.1  (AL161587) putative protein [ <i>Arabidopsis thaliana</i> ]  | 0.085   |
| 4353  | 10047323 | gi 10047323 dbj BAB13449.1  (AB046843) KIAA1623 protein [ <i>Homo sapiens</i> ]  | 2.7     |
| 4359  | 262249   | gi 262249 gb AAB24620.1  (S52010) orf1 5' of EpoR [ <i>Mus sp.</i> ]   | 0.67    |
| 4361  | 14589828 | gi 14589828 gb AAK70656.1 AC024771_1 (AC024771) Hypothetical protein Y40B10A.1 [ <i>Caenorhabditis elegans</i> ]   | 0.45    |
| 4364  | 543537   | gi 543537 pir JN0720 glucosyl transferase - <i>Shigella flexneri</i> phage X gb AAA71895.1  (L05001) glucosyl transferase [bacteriophage SfX]  | 6.6     |
| 4366  | 14587208 | gi 14587208 dbj BAB61142.1  (AP003199) hypothetical protein [ <i>Oryza sativa</i> ]  | 5.1     |
| 4370  | 13385738 | gi 13385738 ref NP_080509.1  RIKEN cDNA 4933434I20 gene [ <i>Mus musculus</i> ] dbj BAB30173.1  (AK016272) putative [ <i>Mus musculus</i> ]  | 0.046   |
| 4372  | 7507823  | gi 7507823 pir T24908 hypothetical protein T14D7.2 - <i>Caenorhabditis elegans</i> emb CAB03365.1  (Z81123) cDNA EST EMBL:M88978 comes from this gene~cDNA EST yk419b8.3 comes from this gene~cDNA EST yk285a8.3 comes from this gene~cDNA EST yk398c1.3 comes from this gene~cDNA EST yk350c8.3 comes from this gene~cDNA EST yk350c8.5 comes from this gene~c> | 0.33    |
| 4376  | 7302573  | gi 7302573 gb AAF57655.1  (AE003798) CG15086 gene product [ <i>Drosophila melanogaster</i> ]   | 1.1     |
| 4377  | 531764   | gi 531764 emb CAA56961.1  (X81072) hypothetical protein in YTA7 5'region [ <i>Saccharomyces cerevisiae</i> ]   | 5.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4378  | 585100   | gi 585100 sp Q07287 ZPB_PIG ZONA PELLUCIDA SPERM-BINDING PROTEIN B PRECURSOR (ZONA PELLUCIDA 3-ALPHA) (ZONA PELLUCIDA GLYCOPROTEIN ZP3-ALPHA) pir  S35712 sperm-binding glycoprotein ZP3-alpha precursor - pig gb AAA50164.1  (L11000) zp3-alpha sperm-binding glycoprotein [Sus scrofa] | 2.5     |
| 4382  | 2148043  | gi 2148043 pir  S51527 S-receptor kinase (EC 2.7.1.-) A14 precursor - rape gb AAA62232.1  (U00443) S-receptor kinase [Brassica napus]  | 6       |
| 4383  | 2257556  | gi 2257556 dbj BAA21448.1  (AB004539) probable membrane protein YOL130w [Schizosaccharomyces pombe]  | 7.9     |
| 4386  | 8928528  | gi 8928528 sp Q44601 YTR1_BUCSC HYPOTHETICAL 35.1 KDA PROTEIN IN TRPA 3'REGION gb AAA92793.1  (U09185) unknown [Buchnera aphidicola]   | 9.3     |
| 4389  | 12518050 | gi 12518050 gb AAG58518.1 AE005564_3 (AE005564) maltodextrin phosphorylase [Escherichia coli O157:H7 EDL933] dbj BAB37682.1  (AP002565) maltodextrin phosphorylase [Escherichia coli O157:H7]  | 4.8     |
| 4391  | 13813161 | gi 13813161 gb AAK40397.1  (AE006644) Hypothetical protein [Sulfolobus solfataricus]   | 0.64    |
| 4393  | 13626090 | gi 13626090 sp P78704 ACR2_NEUCR ACRIFLAVINE SENSITIVITY CONTROL PROTEIN ACR-2   | 3       |
| 4394  | 6680736  | gi 6680736 ref NP_031522.1  AT motif binding factor 1 [Mus musculus] dbj BAA05046.1  (D26046) AT motif-binding factor [Mus musculus] prf  2207230A transcription factor ATBF1 [Mus musculus]   | 1.1     |
| 4395  | 7269957  | gi 7269957 emb CAB79774.1  (AL161577) cyclic nucleotide and calmodulin-regulated ion channel-like protein [Arabidopsis thaliana]   | 5       |
| 4396  | 13812152 | gi 13812152 ref NP_113279.1  hypothetical protein [Guillardia theta] gb AAK39839.1 AF165818_47 (AF165818) hypothetical protein [Guillardia theta]  | 2       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4398  | 11350074 | gi 11350074 pir G83141 hypothetical protein PA4035 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG07422.1 AE004820_7 (AE004820) hypothetical protein [Pseudomonas aeruginosa]  | 1.8     |
| 4399  | 6601484  | gi 6601484 gb AAF18995.1 AF211856_1 (AF211856) pulmonary surfactant protein A [Ovis aries] gb AAF31148.1 AF076633_1 (AF076633) pulmonary surfactant-associated protein A [Ovis aries]   | 2.3     |
| 4402  | 7480194  | gi 7480194 pir T37054 hypothetical protein SCJ21.05 - Streptomyces coelicolor emb CAB52351.1  (AL109747) hypothetical SCJ21.05 [Streptomyces coelicolor A3(2)]  | 6.9     |
| 4403  | 123346   | gi 123346 sp P16393 HMDH_STRPU 3-HYDROXY-3-METHYLGLUTARYL-COENZYME A REDUCTASE (HMG-COA REDUCTASE) pir A31898 hydroxymethylglutaryl-CoA reductase (NADPH) (EC 1.1.1.34) - sea urchin (Strongylocentrotus purpuratus) gb AAA30060.1  (J04200) HMGC CoA reductase (EC 1.1.1.34) [Strongylocentrotus purpuratus] | 4.2     |
| 4404  | 1870163  | gi 1870163 emb CAB05927.1  (Z83335) unknown [Streptococcus pneumoniae]  | 8.3     |
| 4408  | 5739524  | gi 5739524 ref NP_000544.1  Werner syndrome protein [Homo sapiens] sp Q14191 WRN_HUMAN WERNER SYNDROME HELICASE gb AAC41981.1  (L76937) Homo sapiens Werner syndrome gene, complete cds gb AAC63361.1  (AF091214) WRN [Homo sapiens] gb AAF06162.1  (AF181897) WRN [Homo sapiens]                             | 7.2     |
| 4409  | 7494315  | gi 7494315 pir C71607 hypothetical protein PFB0745w malaria parasite (Plasmodium falciparum) gb AAC71938.1  (AE001415) hypothetical protein [Plasmodium falciparum]   | 2.4     |
| 4414  | 13477147 | gi 13477147 gb AAH05031.1 AAH05031 (BC005031) Unknown (protein for IMAGE:3532103) [Homo sapiens]  | 9.1     |
| 4415  | 6650234  | gi 6650234 gb AAF21778.1  (AF072567) zinc finger protein 74 isoform III [Homo sapiens]  | 3.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4419  | 7498637  | gi 7498637 pir T32474 hypothetical protein F08F1.3 - <i>Caenorhabditis elegans</i> gb AAB71303.1  (AF026213) Hypothetical protein F08F1.3 [ <i>Caenorhabditis elegans</i> ]   | 9.9     |
| 4420  | 6016842  | gi 6016842 dbj BAA85182.1  (AB033168) nuclear protein ZAP [ <i>Mus musculus</i> ]   | 2.2     |
| 4422  | 125704   | gi 125704 sp P08630 SRC2_DROME TYROSINE-PROTEIN KINASE SRC28C pir TVFFDS protein-tyrosine kinase (EC 2.7.1.112) src2 - fruit fly ( <i>Drosophila melanogaster</i> ) gb AAA28912.1  (M16599) Dsrc28C protein [ <i>Drosophila melanogaster</i> ]  | 8.9     |
| 4423  | 14746157 | gi 14746157 ref XP_046163.1  T-cell lymphoma-1 [ <i>Homo sapiens</i> ]  | 8.6     |
| 4424  | 13235641 | gi 13235641 emb CAC33768.1  (AJ308570) S-adenosyl-L-methionine:salicylic acid carboxyl methyltransferase [ <i>Stephanotis floribunda</i> ]  | 6.3     |
| 4426  | 12805257 | gi 12805257 gb AAH02091.1 AAH02091 (BC002091) Unknown (protein for MGC:6342) [ <i>Mus musculus</i> ]  | 5.5     |
| 4428  | 7488979  | gi 7488979 pir T07612 cellulase (EC 3.2.1.4) Cel3, membrane-anchored - tomato gb AAC49704.1  (U78526) endo-1,4-beta-glucanase [ <i>Lycopersicon esculentum</i> ]  | 9.5     |
| 4429  | 14741807 | gi 14741807 ref XP_049622.1  KIAA1630 protein [ <i>Homo sapiens</i> ]   | 2E-16   |
| 4434  | 6324137  | gi 6324137 ref NP_014207.1  chitin synthase 1; Chs1p [ <i>Saccharomyces cerevisiae</i> ] sp P08004 CHS1_YEAST CHITIN SYNTHASE 1 (CHITIN-UDP ACETYL-GLUCOSAMINYL TRANSFERASE 1) pir A23944 chitin synthase (EC 2.4.1.16) CHS1 - yeast ( <i>Saccharomyces cerevisiae</i> ) gb AAA34491.1  (M14045) chitin synthase [ <i>Saccharomyces cerevisiae</i> ] emb CAA96086.1  (Z71468) ORF YNL192w [ <i>Saccharomyces cerevisiae</i> ] | 6.8     |
| 4436  | 6678958  | gi 6678958 ref NP_032667.1  microtubule associated testis specific serine/threonine protein kinase [ <i>Mus musculus</i> ] pir A54602 microtubule-associated serine/threonine protein kinase MAST205 - mouse gb AAC04312.1  (U02313) protein kinase [ <i>Mus musculus</i> ]   | 0.41    |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4445  | 7494262  | gi 7494262 pir T18489 hypothetical protein C0820w - malaria parasite ( <i>Plasmodium falciparum</i> )<br>emb CAB11128.1  (Z98551) hypothetical protein, PFC0820w [ <i>Plasmodium falciparum</i> ]  | 6.3     |
| 4454  | 11245201 | gi 11245201 gb AAG33502.1 AF302058_1 (AF302058) cytochrome oxidase I [ <i>Apocrypta</i> sp. MSPAR2]  | 9.1     |
| 4457  | 6752960  | gi 6752960 ref NP_033743.1  a disintegrin and metalloprotease domain 11; a disintegrin and metalloprotease domain (ADAM) 11 [ <i>Mus musculus</i> ] sp Q9R1V4 AD11_MOUSE ADAM 11 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE DOMAIN 11) (METALLOPROTEINASE-LIKE, DISINTEGRIN-LIKE, AND CYSTEINE-RICH PROTEIN) (MDC) dbj BAA83384.1  (AB009676) ADAM11 [ <i>Mus musculus</i> ] | 3.8     |
| 4462  | 103076   | gi 103076 pir B21124 Bkm-like sex-determining region hypothetical protein CS314 - fruit fly ( <i>Drosophila melanogaster</i> ) (fragment)  | 0.14    |
| 4463  | 14742023 | gi 14742023 ref XP_039778.1  HSPC047 protein [ <i>Homo sapiens</i> ]   | 1E-65   |
| 4464  | 13816057 | gi 13816057 gb AAK42842.1  (AE006867) Agmatinase (agmatine ureohydrolase) (speB-2) [ <i>Sulfolobus solfataricus</i> ]  | 6.5     |
| 4466  | 295359   | gi 295359 gb AAA21303.1  (L14824) surface antigen [ <i>Trypanosoma cruzi</i> ]   | 4.2     |
| 4471  | 2429459  | gi 2429459 gb AAB70995.1  (AF025461) contains similarity to <i>Canis familiaris</i> (dog) 180k ribosome receptor (NID:g984113) [ <i>Caenorhabditis elegans</i> ]   | 2.2     |
| 4474  | 7296176  | gi 7296176 gb AAF51469.1  (AE003588) CG2839 gene product [ <i>Drosophila melanogaster</i> ]  | 8.9     |
| 4475  | 14736857 | gi 14736857 ref XP_005322.2  KIAA0967 protein [ <i>Homo sapiens</i> ]  | 0.33    |
| 4480  | 13959004 | gi 13959004 gb AAK51055.1 AF361075_2 (AF361075) UL24 [ <i>Canine herpesvirus</i> ]   | 0.35    |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4483  | 7511539  | gi 7511539 pir T18770 probable calcium channel protein - <i>Caenorhabditis elegans</i> emb CAA90091.1  (Z49907) similar to calcium channel alpha-2 subunit~cDNA EST yk134g4.5 comes from this gene~cDNA EST yk49c7.3 comes from this gene~cDNA EST yk134g4.3 comes from this gene~cDNA EST yk49c7.5 comes from this gene~cDNA EST yk349a4.3 comes from this gene~cD> emb CAA90141.1  (Z49912) similar to calcium channel alpha-2 subunit~cDNA EST yk134g4.5 comes from this gene~cDNA EST yk49c7.3 comes from this gene~cDNA EST yk134g4.3 comes from this gene~cDNA EST yk49c7.5 comes from this gene~cDNA EST yk349a4.3 comes from this gene~cD> | 6       |
| 4484  | 11288486 | gi 11288486 pir T49552 hypothetical protein B21J21.300 [imported] - <i>Neurospora crassa</i> emb CAB91353.1  (AL355929) hypothetical protein [ <i>Neurospora crassa</i> ]  | 9.5     |
| 4488  | 11120676 | gi 11120676 ref NP_068546.1  putative envelope polyprotein [DG-75 Murine leukemia virus] gb AAG29094.1 AF221065_2 (AF221065) putative envelope polyprotein [DG-75 Murine leukemia virus]   | 1.8     |
| 4489  | 3901274  | gi 3901274 gb AAC78630.1  (AF077821) inducible nitric oxide synthase; iNOS [ <i>Canis familiaris</i> ]   | 3.5     |
| 4491  | 11595582 | gi 11595582 emb CAC18184.1  (AL451014) conserved hypothetical protein [ <i>Neurospora crassa</i> ]   | 3       |
| 4493  | 5835447  | gi 5835447 ref NP_008371.1 ND6_13186 NADH dehydrogenase subunit 6 [ <i>Onchocerca volvulus</i> ] pir T11066 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 6 - nematode ( <i>Onchocerca volvulus</i> ) mitochondrion gb AAC61613.1  (AF015193) NADH dehydrogenase subunit 6 [ <i>Onchocerca volvulus</i> ]   | 1       |
| 4494  | 13814848 | gi 13814848 gb AAK41824.1  (AE006774) SSV1 hypothetical 14.8 kd protein (orf B-129) homolog [ <i>Sulfolobus solfataricus</i> ]   | 5.4     |
| 4500  | 14529727 | gi 14529727 emb CAC42176.1  (AL135758) dM117J5.1 (novel protein similar to anonymous human, fly, worm and yeast proteins) [ <i>Mus musculus</i> ]  | 7E-97   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4504  | 13512594 | gi 13512594 gb AAK28688.1  (AF078553) unknown function U3 [Ehrlichia canis]  | 8.8     |
| 4506  | 6635084  | gi 6635084 emb CAB64573.1  (AL135930) hypothetical protein L4738.02 [Leishmania major]   | 3.2     |
| 4508  | 11467470 | gi 11467470 ref NP_043616.1  50S ribosomal protein L4 [Odontella sinensis] sp P49546 RK4_ODOSI CHLOROPLAST 50S RIBOSOMAL PROTEIN L4 pir S78275 ribosomal protein L4, chloroplast - Odontella sinensis chloroplast emb CAA91648.1  (Z67753) 50S ribosomal protein L4 [Odontella sinensis]   | 5.9     |
| 4509  | 4512681  | gi 4512681 gb AAD21735.1  (AC006931) hypothetical protein [Arabidopsis thaliana]   | 0.73    |
| 4510  | 5835704  | gi 5835704 ref NP_008519.1 ND4_15045 NADH dehydrogenase subunit 4 [Rhipicephalus sanguineus] sp O99825 NU4M_RHISA NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 pir T11162 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 [similarity] - hardbacked tick (Rhipicephalus sanguineus) mitochondrion gb AAD05526.1  (AF081829) NADH dehydrogenase 4 [Rhipicephalus sanguineus] | 6.8     |
| 4511  | 8922500  | gi 8922500 ref NP_060600.1  hypothetical protein FLJ10539 [Homo sapiens] dbj BAA91669.1  (AK001401) unnamed protein product [Homo sapiens]   | 2E-13   |
| 4514  | 12018296 | gi 12018296 ref NP_072138.1  CDC10 (cell division cycle 10, S.cerevisiae, homolog) [Rattus norvegicus] sp Q9WVC0 SEP7_RAT SEPTIN 7 (CDC10 PROTEIN HOMOLOG) gb AAD37861.1 AF142759_1 (AF142759) CDC10 [Rattus norvegicus]   | 6.9     |
| 4518  | 11357368 | gi 11357368 pir T48358 hypothetical protein F12E4.100 - Arabidopsis thaliana emb CAB83293.1  (AL162751) putative protein [Arabidopsis thaliana]  | 1.1     |
| 4520  | 6754038  | gi 6754038 ref NP_034456.1  glycoprotein 1a, alpha polypeptide [Mus musculus] gb AAC53320.1  (U91967) platelet glycoprotein Ib-alpha [Mus musculus]  | 0.53    |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4521  | 7437434  | gi 7437434 pir D72038 DNA topoisomerase I CP1103 [imported] - Chlamydomonas reinhardtii (strains CWL029 and AR39) gb AAD18907.1  (AE001658) DNA Topoisomerase I-Fused to SWI Domain [Chlamydomonas reinhardtii CWL029] gb AAF38871.1  (AE002266) DNA topoisomerase I [Chlamydomonas reinhardtii AR39] dbj BAA98977.1  (AP002547) DNA topoisomerase I-fused to SWI domain [Chlamydomonas reinhardtii J138] | 8.2     |
| 4525  | 1514669  | gi 1514669 emb CAA87082.1  (Z46958) adenylyl cyclase [Xenopus laevis]   | 0.86    |
| 4526  | 6321382  | gi 6321382 ref NP_011459.1  similar to S. pombe sds23; Sds23p [Saccharomyces cerevisiae] sp P53172 YGF6_YEAST HYPOTHETICAL 58.1 KD PROTEIN IN UBC2-OLE1 INTERGENIC REGION pir S64060 probable membrane protein YGL056c - yeast (Saccharomyces cerevisiae) emb CAA96759.1  (Z72578) ORF YGL056c [Saccharomyces cerevisiae]   | 4.2     |
| 4528  | 7487690  | gi 7487690 pir T01961 hypothetical protein T5H22.5 - Arabidopsis thaliana gb AAC62796.1  (AF096372) contains similarity to reverse transcriptase (Pfam: PF00078 rvt, E=4.3e-08) [Arabidopsis thaliana] emb CAB80803.1  (AL161498) similarity to [Arabidopsis thaliana]  | 3.9     |
| 4530  | 12839203 | gi 12839203 dbj BAB24467.1  (AK006222) putative [Mus musculus]  | 9.2     |
| 4531  | 1177607  | gi 1177607 emb CAA63219.1  (X92485) pva1 [Plasmodium vivax]   | 0.11    |
| 4534  | 7506781  | gi 7506781 pir T24250 hypothetical protein R53.3a - Caenorhabditis elegans emb CAA91353.1  (Z66515) contains similarity to Pfam domain: PF00096 (Zinc finger, C2H2 type), Score=105.7, E-value=2.9e-28, N=5 [Caenorhabditis elegans]  | 3.2     |
| 4538  | 14041637 | gi 14041637 emb CAC38421.1  (AJ302647) POL protein [Human immunodeficiency virus type 1]  | 2.8     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4546  | 6324843  | gi 6324843 ref NP_014912.1  Required for viability in the absence of Cin8p; Pac1p [Saccharomyces cerevisiae] sp P39946 PAC1_YEAST PAC1 PROTEIN pir S67166 PAC1 protein - yeast (Saccharomyces cerevisiae) emb CAA61775.1  (X89633) hypothetical protein [Saccharomyces cerevisiae] gb AAB00685.1  (U16827) Pac1p [Saccharomyces cerevisiae] emb CAA99493.1  (Z75177) ORF YOR269w [Saccharomyces cerevisiae] | 4.2     |
| 4555  | 14424433 | gi 14424433 ref NP_077816.1  ATPase, Class V, type 10C; ATPase type IV, phospholipid transporting (P-type) (putative) [Homo sapiens] gb AAK33100.1  (AY029504) aminophospholipid-transporting ATPase [Homo sapiens] dbj BAB47392.1  (AB051358) putative aminophospholipid translocase [Homo sapiens]  | 3E-10   |
| 4560  | 6714740  | gi 6714740 emb CAB66205.1  (AL136502) putative prolyl aminopeptidase. [Streptomyces coelicolor A3(2)]   | 4.7     |
| 4562  | 6724176  | gi 6724176 gb AAF26878.1 AF196232_1 (AF196232) T cell receptor V delta 6 [Rattus norvegicus]  | 7.4     |
| 4563  | 14783807 | gi 14783807 ref XP_027541.1  hypothetical protein FLJ21858 [Homo sapiens]   | 3.1     |
| 4564  | 6478266  | gi 6478266 gb AAF13781.1 AF129403_2 (AF129403) gamma subunit of membrane-bound ATP synthase [Buchnera aphidicola]   | 2       |
| 4566  | 7509812  | gi 7509812 pir T26861 hypothetical protein Y43F8B.5 - Caenorhabditis elegans emb CAA21513.1  (AL032623) contains similarity to Pfam domain: PF00188 (SCP-like extracellular protein), Score=34.9, E-value=4.2e-09, N=2 [Caenorhabditis elegans]   | 5.7     |
| 4567  | 5230656  | gi 5230656 gb AAD40953.1 AF148934_1 (AF148934) phantastica [Lycopersicon esculentum]  | 7.9     |
| 4578  | 14732381 | gi 14732381 ref XP_050222.1  hypothetical protein XP_050222 [Homo sapiens]  | 0.0009  |
| 4581  | 14349161 | gi 14349161 dbj BAB60707.1  (AB049622) ficolin 4 [Halocynthia roretzi]  | 2.5     |
| 4585  | 3599476  | gi 3599476 gb AAC69336.1  (AF084637) serendipity alpha protein [Drosophila virilis]   | 2.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4586  | 145512   | gi 145512 gb AAC41418.1  (M55661) colonisation factor antigen d' [Escherichia coli]   | 8.9     |
| 4590  | 7499104  | gi 7499104 pir  T20906 hypothetical protein F14F7.1 - Caenorhabditis elegans emb CAB04111.1  (Z81503) predicted using Genefinder~contains similarity to Pfam domain: PF01484 (Nematode cuticle collagen N-terminal domain), Score=31.5, E-value=6.2e-06, N=1~cDNA EST yk56g5.3 comes from this gene~cDNA EST yk56g5.5 comes from this gene [Caenorhabditis] | 9.8     |
| 4591  | 7267234  | gi 7267234 emb CAB80841.1  (AL161501) putative sugar transporter [Arabidopsis thaliana]   | 9.9     |
| 4593  | 401050   | gi 401050 sp Q01656 RSP4_CHLRE FLAGELLAR RADIAL SPOKE PROTEIN 4 pir A44498 radial spoke protein 4 - Chlamydomonas reinhardtii gb AAA33092.1  (M87526) flagellar radial spoke protein [Chlamydomonas reinhardtii]  | 0.31    |
| 4594  | 7300719  | gi 7300719 gb AAF55865.1  (AE003734) CG5862 gene product [Drosophila melanogaster]  | 1.5     |
| 4596  | 12851516 | gi 12851516 dbj BAB29072.1  (AK013941) putative [Mus musculus]  | 1.1     |
| 4598  | 14193314 | gi 14193314 gb AAK55896.1 AF267213_2 (AF267213) ATP synthase gamma subunit [Candidatus Carsonella ruddii]   | 5.2     |
| 4599  | 13898998 | gi 13898998 gb AAK48930.1 AF359251_1 (AF359251) extracellular polypeptide Ecp76 [Chlamydomonas reinhardtii]   | 0.17    |
| 4601  | 8922500  | gi 8922500 ref NP_060600.1  hypothetical protein FLJ10539 [Homo sapiens] dbj BAA91669.1  (AK001401) unnamed protein product [Homo sapiens]  | 4.7     |
| 4605  | 7494152  | gi 7494152 pir  T18410 carbamoyl-phosphate synthase (glutamine-hydrolyzing) (EC 6.3.5.5) II - malaria parasite (Plasmodium falciparum) gb AAA29522.1  (L32150) carbamoyl phosphate synthetase II [Plasmodium falciparum]  | 8.7     |
| 4607  | 6178092  | gi 6178092 dbj BAA86168.1  (AB031705) ORF2 protein [TT virus]   | 3.4     |
| 4608  | 122078   | gi 122078 sp P02301 H34_MOUSE HISTONE H3.4 (EMBRYONIC) emb CAA24131.1  (V00754) reading frame histone H3 [Mus musculus]   | 0.059   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4610  | 2598224  | gi 2598224 emb CAA69955.1  (Y08696) aldehyde dehydrogenase [Gluconacetobacter europaeus]   | 2.1     |
| 4612  | 12382242 | gi 12382242 gb AAG53080.1 AF263824_1 (AF263824) 5'A2rel-related protein [Leishmania donovani]  | 3.2     |
| 4613  | 1405336  | gi 1405336 dbj BAA13060.1  (D86240) hypothethcal membrane transporter [Staphylococcus aureus] gb AAD21958.1  (AF101234) putative membrane protein DltB [Staphylococcus aureus] dbj BAB42033.1  (AP003132) DltB membrane protein [Staphylococcus aureus subsp. aureus N315] dbj BAB57095.1  (AP003360) DltB membrane protein [Staphylococcus aureus subsp. aureus Mu50] | 7.4     |
| 4616  | 6321803  | gi 6321803 ref NP_011879.1  PolyA-binding protein; Mip6p [Saccharomyces cerevisiae] sp P38760 YHH5_YEAST HYPOTHETICAL 75.9 KDA PROTEIN IN SPO13-ARG4 INTERGENIC REGION pir  S46788 PES4 protein homolog YHR015w - yeast (Saccharomyces cerevisiae) gb AAB68942.1  (U10400) Yhr015wp [Saccharomyces cerevisiae]   | 5.3     |
| 4618  | 14749154 | gi 14749154 ref XP_031524.1  AF15q14 protein [Homo sapiens]  | 9E-94   |
| 4621  | 12837658 | gi 12837658 dbj BAB23899.1  (AK005241) putative [Mus musculus] dbj BAB26680.1  (AK010067) putative [Mus musculus]  | 6.8     |
| 4622  | 9628166  | gi 9628166 ref NP_042752.1  CD2 homolog [African swine fever virus] pir  A40678 T-cell adhesion receptor CD2 homolog - African swine fever virus gb AAA42691.1  (L16864) cd2 homologue [African swine fever virus] gb AAA65288.1  (U18466) CD2 homolog [African swine fever virus] prf  2113434BJ CD2-like protein [African swine fever virus]                         | 7.6     |
| 4625  | 56691    | gi 56691 emb CAA68549.1  (Y00497) precursor (AA - 24 to 198) [Rattus norvegicus]   | 4.2     |
| 4628  | 10946710 | gi 10946710 ref NP_067350.1  Rhesus blood group-associated B glycoprotein; Rh type B glycoprotein [Mus musculus] gb AAF19371.1  (AF193808) Rh type B glycoprotein [Mus musculus]   | 9.9     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |          |
|---|----------|--|----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE  |
| 4631  | 7507118  | gi 7507118 pir T24482 hypothetical protein T05A1.2 - <i>Caenorhabditis elegans</i> emb CAA92476.1  (Z68219) contains similarity to Pfam domain: PF01391 (Collagen triple helix repeat (20 copies)), Score=86.4, E-value=1.8e-22, N=2; PF01484 (Nematode cuticle collagen N-terminal domain), Score=23.9, E-value=0.0012, N=1~cDNA EST CEMSE21F comes from this > | 3.6      |
| 4634  | 2072964  | gi 2072964 gb AAC51271.1  (U93569) putative p150 [Homo sapiens]  | 0.12     |
| 4636  | 13385228 | gi 13385228 ref NP_080036.1  RIKEN cDNA 4933428I03 gene [Mus musculus] dbj BAB30529.1  (AK016968) putative [Mus musculus] dbj BAB30656.1  (AK017257) putative [Mus musculus]   | 2.1      |
| 4639  | 13637800 | gi 13637800 ref XP_017899.1  hypothetical protein FLJ12673 [Homo sapiens]  | 2E-11    |
| 4645  | 14759884 | gi 14759884 ref XP_010198.3  64448 [Homo sapiens] sp Q9BZS1 FXP3_HUMAN FORKHEAD BOX PROTEIN P3 (ZINC FINGER PROTEIN JM2) (SCURFIN) gb AAG53607.1 AF277993_1 (AF277993) scurfin [Homo sapiens]  | 0.000002 |
| 4651  | 9758192  | gi 9758192 dbj BAB08666.1  (AB018109) pectinesterase [Arabidopsis thaliana]  | 5.5      |
| 4653  | 9989055  | gi 9989055 gb AAG10818.1 AC011808_6 (AC011808) Hypothetical protein [Arabidopsis thaliana]   | 6E-11    |
| 4658  | 560700   | gi 560700 gb AAB31458.1  gibbon ape leukemia virus receptor [Mus musculus=Japanese feral mice, spp. molossinus, susceptible cells, Peptide, 680 aa]  | 7        |
| 4659  | 3878238  | gi 3878238 emb CAA81588.1  (Z27078) cDNA EST yk181g1.5 comes from this gene~cDNA EST yk153a11.5 comes from this gene~cDNA EST yk465b1.5 comes from this gene [Caenorhabditis elegans]  | 1.3      |





| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4688  | 14754644 | gi 14754644 ref XP_030896.1  similar to hypothetical protein MGC5384 (H. sapiens) [Homo sapiens]   | 9E-48   |
| 4689  | 2865163  | gi 2865163 dbj BAA24799.1  (AB007836) Hic-5 [Homo sapiens]   | 2E-16   |
| 4693  | 6760239  | gi 6760239 gb AAF28263.1 AF178655_4 (AF178655) fusion F [Bovine parainfluenza virus 3]   | 9.8     |
| 4698  | 13446199 | gi 13446199 emb CAC34985.1  (AL035536) very hypothetical protein [Schizosaccharomyces pombe]   | 5.2     |
| 4699  | 6320491  | gi 6320491 ref NP_010571.1  synaptonemal complex protein; Zip1p [Saccharomyces cerevisiae]<br>sp P31111 ZIP1_YEAST SYNAPTONEMAL COMPLEX PROTEIN ZIP1 pir  S70115 ZIP1 protein - yeast (Saccharomyces cerevisiae) gb AAB64474.1  (U51031) Zip1p: Synaptonemal complex protein (Swiss Prot. accession number P31111). [Saccharomyces cerevisiae]   | 0.001   |
| 4703  | 416704   | gi 416704 sp Q03376 BAR3_CHITE BALBIANI RING PROTEIN 3 PRECURSOR pir  S08167 Balbiani ring 3 protein - midge (Chironomus tentans) emb CAA36506.1  (X52263) balbiani ring 3 (BR3) [Chironomus tentans]  | 5.4     |
| 4709  | 6005948  | gi 6005948 ref NP_009118.1  WW domain-containing binding protein 4; formin binding protein 21 [Homo sapiens] ref XP_007153.1  WW domain-containing binding protein 4 [Homo sapiens] ref XP_049374.1  WW domain-containing binding protein 4 [Homo sapiens] ref XP_049375.1  WW domain-containing binding protein 4 [Homo sapiens] gb AAC34811.1  (AF071185) formin binding protein 21 [Homo sapiens] | 0.007   |
| 4713  | 629166   | gi 629166 pir  S39791 neurotoxin - Clostridium botulinum   | 2.5     |
| 4719  | 4096360  | gi 4096360 gb AAC99858.1  (U31159) CR16 [Rattus norvegicus] gb AAC99859.1  (U31169) SH3 domain binding protein [Rattus norvegicus]   | 4.3     |
| 4723  | 11352438 | gi 11352438 pir  F83161 pyocin protein PA3866 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG07253.1 AE004804_1 (AE004804) pyocin protein [Pseudomonas aeruginosa]  | 9.1     |
| 4725  | 14761847 | gi 14761847 ref XP_017198.2  hypothetical protein FLJ12085 [Homo sapiens]  | 0.0007  |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4726  | 7475497  | gi 7475497 pir  B70045 hypothetical protein yvpB - Bacillus subtilis gb AAC67292.1  (AF017113) YvpB [Bacillus subtilis] emb CAB15499.1  (Z99121) yvpB [Bacillus subtilis]   | 9       |
| 4731  | 11466185 | gi 11466185 ref NP_066508.1  NADH dehydrogenase subunit 11 [Naegleria gruberi] gb AAG17786.1 AF288092_11 (AF288092) NADH dehydrogenase subunit 11 [Naegleria gruberi]   | 6.2     |
| 4735  | 9802589  | gi 9802589 gb AAF99791.1 AC012463_8 (AC012463) T2E6.16 [Arabidopsis thaliana]   | 7.7     |
| 4741  | 7512245  | gi 7512245 pir  T03849 Fas-binding protein Daxx - green monkey gb AAB66586.1  (AF015957) Fas-binding protein Daxx [Cercopithecus aethiops]  | 7.1     |
| 4746  | 345660   | gi 345660 pir  A45031 cysteine-rich fibroblast growth factor receptor - chicken gb AAA48769.1  (M95766) cysteine-rich fibroblast growth factor receptor [Gallus gallus]   | 1       |
| 4750  | 6324550  | gi 6324550 ref NP_014619.1  mitochondrial initiation factor 2; Ifm1p [Saccharomyces cerevisiae] sp P25038 IF2M_YEAST TRANSLATION INITIATION FACTOR IF-2, MITOCHONDRIAL PRECURSOR (IF-2MT) (IF-2(MT)) pir  S66706 translation initiation factor IF-2, mitochondrial - yeast (Saccharomyces cerevisiae) emb CAA99023.1  (Z74765) ORF YOL023w [Saccharomyces cerevisiae] | 8.1     |
| 4751  | 12249161 | gi 12249161 ref NP_066211.2  cytochrome c oxidase subunit III [Schistosoma mansoni] gb AAG13163.2  (AF216698) cytochrome c oxidase subunit 3 [Schistosoma mansoni]  | 6.6     |
| 4758  | 10835218 | gi 10835218 ref NP_004609.1  topoisomerase (DNA) III alpha [Homo sapiens] ref XP_008635.1  topoisomerase (DNA) III alpha [Homo sapiens] sp Q13472 TP3A_HUMAN DNA TOPOISOMERASE III ALPHA gb AAB03694.1  (U43431) DNA topoisomerase III [Homo sapiens]   | 9.4     |
| 4759  | 9294528  | gi 9294528 dbj BAB02791.1  (AB024034) gb AAF50915.1~gene_id:MDC11.5~similar to unknown protein [Arabidopsis thaliana]   | 7.1     |
| 4760  | 6624755  | gi 6624755 emb CAB63872.1  (AJ251846) OTX5b protein [Xenopus laevis]  | 8.8     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4762  | 14768465 | gi 14768465 ref XP_038469.1  hypothetical protein XP_038469 [Homo sapiens]  | 0.88    |
| 4768  | 7290081  | gi 7290081 gb AAF45547.1  (AE003418) fz3 gene product [alt 2] [Drosophila melanogaster]   | 4.7     |
| 4770  | 13358052 | gi 13358052 ref NP_078326.1  unique hypothetical membrane lipoprotein [Ureaplasma urealyticum] pir  H82883 hypothetical protein UU489 [imported] - Ureaplasma urealyticum gb AAF30901.1 AE002147_2 (AE002147) unique hypothetical membrane lipoprotein [Ureaplasma urealyticum] | 0.95    |
| 4774  | 12698025 | gi 12698025 dbj BAB21831.1  (AB051527) KIAA1740 protein [Homo sapiens]  | 0.24    |
| 4784  | 116910   | gi 116910 sp P10169 CON8_NEUCR CONIDIATION-SPECIFIC PROTEIN 8 pir  S02210 con-8 protein - Neurospora crassa emb CAA30092.1  (X07040) con-8 [Neurospora crassa]  | 4.3     |
| 4788  | 3694664  | gi 3694664 gb AAC62434.1  (AC004893) similar to NEDD-4 (KIA0093); similar to P46934 (PID:gi1171682) [Homo sapiens]  | 8.2     |
| 4790  | 1731439  | gi 1731439 sp P51505 ZN80_MACMU ZINC FINGER PROTEIN 80 emb CAA61771.1  (X89629) znf80 [Macaca mulatta]  | 1.3     |
| 4794  | 11257183 | gi 11257183 pir  F82319 transketolase 1 VC0473 [imported] - Vibrio cholerae (group O1 strain N16961) gb AAF93646.1  (AE004133) transketolase 1 [Vibrio cholerae]  | 9.1     |
| 4795  | 11466520 | gi 11466520 ref NP_044769.1  SecY-type transporter protein [Reclinomonas americana] pir  S78151 secY protein homolog - Reclinomonas americana (ATCC 50394) mitochondrion gb AAD11884.1  (AF007261) SecY-type transporter protein [Reclinomonas americana]                       | 2.3     |
| 4799  | 5869811  | gi 5869811 emb CAB55552.1  (AJ243538) Fox2 protein [Glomus mosseae]   | 8.5     |



10549 32022669

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4825  | 13926079 | gi 13926079 gb AAK49526.1 AF356082_1 (AF356082) C2H2 zinc finger transcription factor JING [Drosophila melanogaster]   | 2.7     |
| 4827  | 1209370  | gi 1209370 gb AAA91081.1  (L33971) EBV BKRF4 homologue [Leporid herpesvirus 1]   | 8       |
| 4829  | 11359537 | gi 11359537 pir T51023 hypothetical protein B7F21.40 [imported] - Neurospora crassa emb CAB97476.1  (AL389901) conserved hypothetical protein [Neurospora crassa]  | 0.57    |
| 4832  | 13629392 | gi 13629392 sp P97523 MET_RAT HEPATOCYTE GROWTH FACTOR RECEPTOR PRECURSOR (MET PROTO-ONCOGENE TYROSINE KINASE) (C-MET) (HGF RECEPTOR) (HGF-SF RECEPTOR) emb CAA65582.1  (X96786) c-met [Rattus norvegicus]                     | 1.3     |
| 4834  | 4508019  | gi 4508019 ref NP_003449.1  bassoon (presynaptic cytomatrix protein); neuronal double zinc finger protein; zinc finger protein 231 [Homo sapiens] gb AAC83555.1  (AF052224) neuronal double zinc finger protein [Homo sapiens] | 1.5     |
| 4835  | 5734374  | gi 5734374 emb CAB52680.1  (AJ133723) Ran-binding protein 2 [Bos taurus]   | 4.7     |
| 4837  | 3281932  | gi 3281932 emb CAA76796.1  (Y17584) beta-lactamase class A [Escherichia coli] emb CAC43180.1  (AJ277416) TEM-29 ES-beta-lactamase [Escherichia coli]   | 9.4     |
| 4839  | 15021417 | gi 15021417 gb AAK77694.1 AF369029_25 (AF369029) ORF25, gene family 4 [white spot syndrome virus]  | 9.4     |
| 4841  | 7507283  | gi 7507283 pir T32024 hypothetical protein T06D4.4 - Caenorhabditis elegans gb AAB66123.1  (AF016673) similar to endothelin-converting enzymes [Caenorhabditis elegans]  | 6.7     |
| 4843  | 1165132  | gi 1165132 emb CAA64491.1  (X95193) homeobox-leucine zipper protein [Pimpinella brachycarpa]   | 8.5     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4845  | 11466755 | gi 11466755 ref NP_039351.1  ORF191 [Marchantia polymorpha] sp P06266 NU6C_MARPO NADH-PLASTOQUINONE OXIDOREDUCTASE CHAIN 6, CHLOROPLAST pir DELVN6 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 6 - liverwort (Marchantia polymorpha) chloroplast emb CAA28137.1  (X04465) ORF191 [Marchantia polymorpha]  | 9.5     |
| 4849  | 14010605 | gi 14010605 gb AAK52051.1 AF363973_1 (AF363973) semaphorin 6C [Mus musculus]   | 6.3     |
| 4853  | 14755906 | gi 14755906 ref XP_044358.1  similar to cleft lip and palate associated transmembrane protein 1 (H. sapiens) [Homo sapiens]  | 2.7     |
| 4859  | 13647785 | gi 13647785 ref XP_018036.1  hypothetical protein FLJ13166 [Homo sapiens] ref XP_051378.1  similar to hypothetical protein FLJ13166 (H. sapiens) [Homo sapiens]  | 6.1     |
| 4866  | 11994373 | gi 11994373 dbj BAB02332.1  (AB019229) gene_id:MDC16.14~unknown protein [Arabidopsis thaliana]   | 4.7     |
| 4872  | 12514590 | gi 12514590 gb AAG55801.1 AE005316_6 (AE005316) orf, hypothetical protein [Escherichia coli O157:H7 EDL933] dbj BAB34856.1  (AP002555) hypothetical protein [Escherichia coli O157:H7]   | 6       |
| 4873  | 14017847 | gi 14017847 dbj BAB47444.1  (AB058718) KIAA1815 protein [Homo sapiens]   | 6E-18   |
| 4878  | 7506698  | gi 7506698 pir T24214 hypothetical protein R134.2 - Caenorhabditis elegans   | 7.3     |
| 4880  | 7505750  | gi 7505750 pir T23590 hypothetical protein K10H10.1 - Caenorhabditis elegans emb CAB05777.1  (Z83236) contains similarity to Pfam domain: PF00083 (Sugar (and other) transporter), Score=-89.7, E-value=0.00037, N=1~cDNA EST yk503h12.5 comes from this gene~cDNA EST yk653a11.3 comes from this gene~cDNA EST yk653a11.5 comes from this gene [Caenorha> | 1.4     |
| 4882  | 2500112  | gi 2500112 sp P71359 RECQ_HAEIN ATP-DEPENDENT DNA HELICASE RECQ gb AAC22387.1  (U32756) ATP-dependent DNA helicase (recQ) [Haemophilus influenzae Rd]  | 8.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4883  | 13447070 | gi 13447070 gb AAK26617.1  (AF340025) NADH dehydrogenase subunit V [Coturnix chinensis] *  | 3.1     |
| 4886  | 14775307 | gi 14775307 ref XP_042250.1  similar to nuclear pore complex interacting protein (H. sapiens) [Homo sapiens]   | 4.2     |
| 4888  | 6434530  | gi 6434530 emb CAB61080.1  (AL132949) predicted using Genefinder~cDNA EST yk51g5.3 comes from this gene~cDNA EST yk62d6.3 comes from this gene~cDNA EST yk51g5.5 comes from this gene~cDNA EST yk62d6.5 comes from this gene~cDNA EST yk105f8.5 comes from this gene~cDNA EST yk99f8.3 > | 0.28    |
| 4896  | 12832739 | gi 12832739 dbj BAB22236.1  (AK002621) putative [Mus musculus]   | 1.1     |
| 4903  | 11281764 | gi 11281764 pir C81739 conserved hypothetical protein TC0120 [imported] - Chlamydia muridarum (strain Nigg) gb AAF38998.1  (AE002279) conserved hypothetical protein [Chlamydia muridarum]   | 2.7     |
| 4908  | 12838194 | gi 12838194 dbj BAB24118.1  (AK005558) putative [Mus musculus]   | 1.7     |
| 4911  | 12721131 | gi 12721131 gb AAK02908.1  (AE006121) unknown [Pasteurella multocida]  | 8.3     |
| 4913  | 10638457 | gi 10638457 emb CAC12644.1  (AL136442) bA25J23.1 (KIAA1165 protein, similar to Drosophila CG8056 protein) [Homo sapiens]   | 1E-18   |
| 4916  | 11346431 | gi 11346431 pir T47803 mitogen-activated protein kinase-like protein - Arabidopsis thaliana emb CAB75798.1  (AL138647) mitogen-activated protein kinase-like protein [Arabidopsis thaliana]  | 4       |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4924  | 14758601 | gi 14758601 ref XP_010183.3  protein phosphatase, EF hand calcium-binding domain 1 [Homo sapiens]<br>ref XP_040201.1  protein phosphatase, EF hand calcium-binding domain 1 [Homo sapiens] ref XP_040202.1  protein phosphatase, EF hand calcium-binding domain 1 [Homo sapiens] sp O14829 PPE1_HUMAN<br>SERINE/THREONINE PROTEIN PHOSPHATASE WITH EF-HANDS-1 (PPEF-1) (PROTEIN PHOSPHATASE WITH EF CALCIUM-BINDING DOMAIN) (PPEF) (SERINE/THREONINE PROTEIN PHOSPHATASE 7) (PP7) gb AAB82795.1  (AF023455) protein phosphatase with EF-hands-1 [Homo sapiens] gb AAC05825.1  (AF027977) serine/threonine protein phosphatase 7 catalytic subunit [Homo sapiens] | 0.08    |
| 4932  | 12007365 | gi 12007365 gb AAG45157.1 AF316823_1 (AF316823) cellulase Cel9-H [Clostridium cellulolyticum]  | 3.2     |
| 4933  | 8745051  | gi 8745051 emb CAB95305.1  (AL359781) dynein heavy chain, cytosolic [Leishmania major]   | 8       |
| 4934  | 7499345  | gi 7499345 pir T21083 hypothetical protein F18A11.4 - Caenorhabditis elegans emb CAB04136.1  (Z81507) cDNA EST yk651h1.5 comes from this gene [Caenorhabditis elegans] emb CAA21639.1  (AL032639) cDNA EST yk651h1.5 comes from this gene [Caenorhabditis elegans]   | 0.4     |
| 4935  | 14133229 | gi 14133229 dbj BAA76843.2  (AB023216) KIAA0999 protein [Homo sapiens]   | 0.91    |
| 4936  | 5835447  | gi 5835447 ref NP_008371.1 ND6_13186 NADH dehydrogenase subunit 6 [Onchocerca volvulus]<br>pir T11066 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 6 - nematode (Onchocerca volvulus) mitochondrion gb AAC61613.1  (AF015193) NADH dehydrogenase subunit 6 [Onchocerca volvulus]   | 2.8     |
| 4940  | 6978439  | gi 6978439 ref NP_036622.1  acrosin [Rattus norvegicus] emb CAA41441.2  (X58550) preproacrosin [Rattus sp.]  | 9.1     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 4946  | 11349140 | gi 11349140 pir G83492 hypothetical protein PA1232 [imported] - Pseudomonas aeruginosa (strain PAO1) gb AAG04621.1 AE004552_11 (AE004552) hypothetical protein [Pseudomonas aeruginosa]   | 1       |
| 4950  | 12862434 | gi 12862434 dbj BAB32470.1  (AB047280) Pol-like protein Pol-2 [Tricholoma matsutake]  | 4.6     |
| 4956  | 15011489 | gi 15011489 gb AAK77584.1 AF396436_24 (AF396436) heme maturase [Tetrahymena thermophila]  | 2.8     |
| 4958  | 1944163  | gi 1944163 dbj BAA19637.1  (AB002668) unnamed protein product [Actinobacillus actinomycetemcomitans]  | 0.84    |
| 4966  | 7522108  | gi 7522108 pir T29097 pro-pol-dUTPase polyprotein - murine endogenous retrovirus ERV-L (fragment) emb CAA73251.1  (Y12713) protease; reverse transcriptase; RNaseH; integrase; dUTPase; Pro-Pol-dUTPase polyprotein [Mus musculus]  | 0.0005  |
| 4968  | 12963743 | gi 12963743 ref NP_076085.1  equilibrative nucleoside transporter 3 [Mus musculus] gb AAK00957.1 AF326986_1 (AF326986) equilibrative nucleoside transporter 3 [Mus musculus]  | 9.3     |
| 4971  | 6503300  | gi 6503300 gb AAF14676.1 AC011713_24 (AC011713) Contains PF01535 Domain of unknown function. [Arabidopsis thaliana]   | 3.1     |
| 4976  | 7498863  | gi 7498863 pir T20730 hypothetical protein F10G8.8 - Caenorhabditis elegans emb CAB02286.2  (Z80216) Weak similarity with intermediate filament protein (TREMBL id G633240), contains similarity to Pfam domain: PF00169 (PH domain), Score=79.3, E-value=2.7e-21, N=2~cDNA EST EMBL:T01262 comes from this gene~cDNA EST yk23d5.3 comes from this gene~> emb CAA19441.2  (AL023823) Weak similarity with intermediate filament protein (TREMBL id G633240), contains similarity to Pfam domain: PF00169 (PH domain), Score=79.3, E-value=2.7e-21, N=2~cDNA EST EMBL:T01262 comes from this gene~cDNA EST yk23d5.3 comes from this gen> | 7       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 4981  | 436923   | gi 436923 gb AAA62274.1  (U01849) ORF1 [Trypanosoma brucei]  | 1.2     |
| 4982  | 2827416  | gi 2827416 gb AAB99843.1  (AF043083) glycoprotein B [human herpesvirus 5]  | 9.1     |
| 4989  | 11135234 | gi 11135234 sp P57642 SYK3_BUCAI PUTATIVE LYSYL-TRNA SYNTHETASE (LYSINE--TRNA LIGASE) (LYSRS) (GX) dbj BAB13271.1  (AP001119) hypothetical lysyl-tRNA synthetase homolog [Buchnera sp. APS]  | 1.4     |
| 4990  | 2129953  | gi 2129953 pir JC5229 laccase (EC 1.10.3.2) precursor - common tobacco gb AAC49536.1  (U43542) diphenol oxidase [Nicotiana tabacum]  | 9.1     |
| 4995  | 13786443 | gi 13786443 gb AAK39568.1 AC025296_3 (AC025296) hypothetical protein [Oryza sativa]  | 0.83    |
| 4998  | 7494262  | gi 7494262 pir T18489 hypothetical protein C0820w - malaria parasite (Plasmodium falciparum) emb CAB11128.1  (Z98551) hypothetical protein, PFC0820w [Plasmodium falciparum]   | 0.81    |
| 5000  | 10121788 | gi 10121788 gb AAG13373.1  (AF268180) polyprotein [bovine viral diarrhea virus type 2]   | 7.4     |
| 5007  | 6906704  | gi 6906704 dbj BAA90553.1  (AB032551) proline-rich inositol polyphosphate 5-phosphatase [Rattus norvegicus]  | 1.6     |
| 5008  | 8978523  | gi 8978523 dbj BAA98360.1  (AP002545) CT147 hypothetical protein [Chlamydophila pneumoniae J138]   | 7.4     |
| 5009  | 9630127  | gi 9630127 ref NP_046554.1  putative lipoprotein [Bacteriophage SPBc2] pir T12766 probable lipoprotein yokB - Bacillus subtilis phage SPBc2 emb CAB14083.1  (Z99115) yokB [Bacillus subtilis] gb AAC12975.1  (AF020713) putative lipoprotein [Bacteriophage SPBc2] | 2.7     |
| 5011  | 8978523  | gi 8978523 dbj BAA98360.1  (AP002545) CT147 hypothetical protein [Chlamydophila pneumoniae J138]   | 7.4     |
| 5012  | 13636469 | gi 13636469 ref XP_016747.1  latent transforming growth factor beta binding protein 1 precursor [Homo sapiens]   | 1.7     |
| 5016  | 3694664  | gi 3694664 gb AAC62434.1  (AC004893) similar to NEDD-4 (KIA0093); similar to P46934 (PID:gi1171682) [Homo sapiens]   | 7.9     |
| 5020  | 14751816 | gi 14751816 ref XP_034239.1  hypothetical protein XP_034239 [Homo sapiens]   | 0.064   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5022  | 4768840  | gi 4768840 gb AAD29638.1 AF117611_1 (AF117611)<br>DosA protein [Dictyostelium discoideum]   | 9.9     |
| 5023  | 7442182  | gi 7442182 pir  T04989 pathogenesis-related protein 1 precursor, 19.3K - Arabidopsis thaliana<br>emb CAA20585.1  (AL031394) pathogenesis-related protein 1 precursor, 19.3K [Arabidopsis thaliana]<br>emb CAB80089.1  (AL161584) pathogenesis-related protein 1 precursor, 19.3K [Arabidopsis thaliana]<br>gb AAG40056.1 AF324705_1 (AF324705) AT4g33720 [Arabidopsis thaliana] gb AAG42009.1 AF327419_1 (AF327419) putative pathogenesis-related protein 1 precursor protein [Arabidopsis thaliana]<br>gb AAK00381.1 AF339699_1 (AF339699) putative pathogenesis-related protein 1 precursor protein [Arabidopsis thaliana] gb AAK62632.1  (AY039577) AT4g33720/T16L1_210 [Arabidopsis thaliana] | 9.3     |
| 5029  | 4884674  | gi 4884674 gb AAD31763.1 AF121945_1 (AF121945)<br>aldehyde oxidase [Mus musculus]   | 7.9     |
| 5031  | 2133751  | gi 2133751 pir  S66610 sulfakinin - bluebottle fly (Calliphora vomitoria) prf 2120269A sulfakinin [Calliphora vomitoria]  | 9       |
| 5033  | 975667   | gi 975667 emb CAA61500.1  (X89213) RNA polymerase [Infectious hematopoietic necrosis virus]<br>prf 2121413F RNA polymerase [Infectious hematopoietic necrosis virus]  | 4.1     |
| 5035  | 11267434 | gi 11267434 pir  F82853 DNA helicase II XF0050 [imported] - Xylella fastidiosa (strain 9a5c)<br>gb AAF82863.1 AE003859_4 (AE003859) DNA helicase II [Xylella fastidiosa 9a5c]   | 3.1     |
| 5036  | 11994373 | gi 11994373 dbj BAB02332.1  (AB019229)<br>gene_id:MDC16.14~unknown protein [Arabidopsis thaliana]   | 4.8     |
| 5050  | 1082778  | gi 1082778 pir  A56395 secretory phospholipase A2 receptor precursor, transmembrane form - human<br>gb AAA70110.1  (U17033) 180 kDa transmembrane PLA2 receptor precursor [Homo sapiens]  | 3.5     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5051  | 13518480 | gi 13518480 ref NP_084839.1  hypothetical protein [Lotus japonicus] ref NP_084856.1  hypothetical protein [Lotus japonicus] dbj BAB33238.1  (AP002983) hypothetical protein [Lotus japonicus] dbj BAB33256.1  (AP002983) hypothetical protein [Lotus japonicus]  | 5       |
| 5065  | 7460247  | gi 7460247 pir B71612 hypothetical protein PFB0555c - malaria parasite (Plasmodium falciparum) gb AAC71900.1  (AE001402) hypothetical protein [Plasmodium falciparum]  | 7.1     |
| 5069  | 13486795 | gi 13486795 dbj BAB40028.1  (AP003021) hypothetical protein [Oryza sativa]   | 2.6     |
| 5072  | 6166049  | gi 6166049 sp O55017 CCAB_MOUSE VOLTAGE-DEPENDENT N-TYPE CALCIUM CHANNEL ALPHA-1B SUBUNIT (CALCIUM CHANNEL, L TYPE, ALPHA-1 POLYPEPTIDE ISOFORM 5) (BRAIN CALCIUM CHANNEL III) (BIII) gb AAB97840.1  (AF042317) neuronal type calcium channel alpha-1 subunit [Mus musculus]                                 | 1.2     |
| 5074  | 7495367  | gi 7495367 pir T33395 hypothetical protein C04F2.1 - Caenorhabditis elegans gb AAC26911.1  (AF078780) Similar to chemoreceptor; C04F2.1 [Caenorhabditis elegans]   | 3.1     |
| 5075  | 9507739  | gi 9507739 ref NP_061405.1  23 pct identical(9 gaps) to 343 residues of 1286 aa protein sp:AIDA_ECOLI[Adhesin AidA-I precursor] [Plasmid F] dbj BAA97896.1  (AP001918) 23 pct identical(9 gaps) to 343 residues of 1286 aa protein sp:AIDA_ECOLI[Adhesin AidA-I precursor] [Plasmid F]                       | 9.7     |
| 5076  | 7495508  | gi 7495508 pir T18993 hypothetical protein C06B8.1 - Caenorhabditis elegans emb CAB03850.1  (Z81463) Similarity to C.elegans zinc finger proteins, contains similarity to Pfam domain: PF00104 (Ligand-binding domain of nuclear hormone receptor), Score=-13.7, E-value=0.051, N=1 [Caenorhabditis elegans] | 4.2     |
| 5077  | 14018037 | gi 14018037 ref NP_114377.1  ATP synthase F0 subunit 6 [Hymenolepis diminuta] gb AAK51337.1 AF314223_9 (AF314223) ATP synthase subunit 6 [Hymenolepis diminuta]  | 4.9     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5086  | 6562005  | gi 6562005 emb CAB62499.1  (AJ250586) chitinase [Arthrobacter sp.]  | 1.5     |
| 5087  | 9631327  | gi 9631327 ref NP_048161.1  ORF MSV090 putative Molluscum contagiosum virus MC121L (vaccinia A16L) homolog, similar to GB:U60315 [Melanoplus sanguinipes entomopoxvirus] pir T28251 ORF MSV090 probable Molluscum contagiosum virus MC121L (vaccinia A16L) homolog - Melanoplus sanguinipes entomopoxvirus gb AAC97640.1  (AF063866) ORF MSV090 putative Molluscum contagiosum virus MC121L (vaccinia A16L) homolog, similar to GB:U60315 [Melanoplus sanguinipes entomopoxvirus]                     | 8.7     |
| 5088  | 4321813  | gi 4321813 gb AAD15835.1  (AF063236) variant 2 major surface glycoprotein [Pneumocystis carinii]  | 6.5     |
| 5089  | 12853765 | gi 12853765 dbj BAB29840.1  (AK015427) putative [Mus musculus]  | 0.0003  |
| 5094  | 732059   | gi 732059 sp P39372 YJHA_ECOLI HYPOTHETICAL 28.3 KDA PROTEIN IN FECI-FIMB INTERGENIC REGION PRECURSOR pir S56536 hypothetical protein f241 (fecI-fimB intergenic region) - Escherichia coli gb AAA97207.1  (U14003) ORF_f241 [Escherichia coli] gb AAC77267.1  (AE000501) orf, hypothetical protein [Escherichia coli K12] gb AAG59493.1 AE005662_5 (AE005662) orf, hypothetical protein [Escherichia coli O157:H7 EDL933] dbj BAB38693.1  (AP002569) hypothetical protein [Escherichia coli O157:H7] | 1.4     |
| 5095  | 84124    | gi 84124 pir B24785 hypothetical protein 1028 - slime mold (Dictyostelium discoideum) transposon DIRS-1 (fragment)  | 2.9     |
| 5096  | 84043    | gi 84043 pir C22845 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Trypanosoma brucei mitochondrion   | 2.3     |
| 5100  | 5441886  | gi 5441886 dbj BAA82384.1  (AP000367) EST AU069246(C53478) corresponds to a region of the predicted gene.; hypothetical protein [Oryza sativa]  | 4.9     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5102  | 6678810  | gi 6678810 ref NP_032581.1  mannan-binding lectin serine protease 1 [Mus musculus]<br>sp P98064 CRAR_MOUSE COMPLEMENT-ACTIVATING COMPONENT OF RA-REACTIVE FACTOR PRECURSOR (RA-REACTIVE FACTOR SERINE PROTEASE P100) (RARF) (MANNAN-BINDING LECTIN SERINE PROTEASE 1)<br>dbj BAA03944.1  (D16492) P100 serine protease of Ra-reactive factor (RaRF) [Mus musculus]  | 7.3     |
| 5106  | 13357651 | gi 13357651 ref NP_077925.1  unique hypothetical membrane lipoprotein [Ureaplasma urealyticum]<br>pir G82934 hypothetical protein UU094 [imported] - Ureaplasma urealyticum gb AAF30500.1 AE002109_3 (AE002109) unique hypothetical membrane lipoprotein [Ureaplasma urealyticum]   | 2.4     |
| 5108  | 2499547  | gi 2499547 sp P77153 WZB_ECOLI PROBABLE LOW MOLECULAR WEIGHT PROTEIN-TYROSINE-PHOSPHATASE WZB pir D64972 probable protein-tyrosine-phosphatase (EC 3.1.3.48) wzb, low molecular weight - Escherichia coli gb AAC77834.1  (U38473) putative acid phosphatase [Escherichia coli] gb AAC75122.1  (AE000296) probable protein-tyrosine-phosphatase [Escherichia coli K12] gb AAG57121.1 AE005432_2 (AE005432) probable protein-tyrosine-phosphatase [Escherichia coli O157:H7 EDL933] dbj BAB36289.1  (AP002560) probable protein-tyrosine-phosphatase [Escherichia coli O157:H7] | 1.4     |
| 5109  | 5292165  | gi 5292165 gb AAB01085.2  (U34402) single-subunit RNA polymerase C [Triticum aestivum]  | 2.9     |
| 5112  | 2598890  | gi 2598890 dbj BAA23297.1  (D86277) VP7 [Human rotavirus 3]   | 0.52    |
| 5115  | 7301702  | gi 7301702 gb AAF56815.1  (AE003767) wdn gene product [Drosophila melanogaster]   | 2       |
| 5116  | 12853765 | gi 12853765 dbj BAB29840.1  (AK015427) putative [Mus musculus]  | 0.0003  |
| 5121  | 4009428  | gi 4009428 gb AAD11553.1  (AF019894) replication protein A [Helicobacter pylori]  | 4.2     |
| 5128  | 12849716 | gi 12849716 dbj BAB28451.1  (AK012761) putative [Mus musculus]  | 7.3     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5129  | 7496182  | gi 7496182 pir T19344 hypothetical protein C17D12.4 - <i>Caenorhabditis elegans</i> emb CAB03892.1  (Z81473) predicted using Genefinder [ <i>Caenorhabditis elegans</i> ]   | 5.7     |
| 5130  | 9634540  | gi 9634540 ref NP_038078.1  TA35L [ <i>Vaccinia virus</i> (strain Tian Tan)] gb AAF34031.1  (AF095689) TA35L [ <i>Vaccinia virus</i> (strain Tian Tan)]   | 9.5     |
| 5136  | 12045115 | gi 12045115 ref NP_072926.1  lipoprotein, putative [ <i>Mycoplasma genitalium</i> ] sp P47502 Y260_MYCGE HYPOTHETICAL LIPOPROTEIN MG260 PRECURSOR pir G64228 hypothetical protein homolog MG260 - <i>Mycoplasma genitalium</i> gb AAC71481.1  (U39705) lipoprotein, putative [ <i>Mycoplasma genitalium</i> ] | 3.3     |
| 5138  | 2144796  | gi 2144796 pir I36912 involucrin S - douroucouli (fragment) gb AAA35376.1  (M25314) involucrin (small allele) [ <i>Aotus trivirgatus</i> ]  | 4.3     |
| 5140  | 7509951  | gi 7509951 pir T33900 hypothetical protein Y48A5A.1 - <i>Caenorhabditis elegans</i> gb AAD12829.1  (AF125455) Y48A5A.1 gene product [ <i>Caenorhabditis elegans</i> ]   | 1.3     |
| 5143  | 13701664 | gi 13701664 dbj BAB42957.1  (AP003135) ORFID:SA1688~hypothetical protein, similar to teichoic acid translocation ATP-binding protein tagH [ <i>Staphylococcus aureus</i> subsp. <i>aureus</i> N315] dbj BAB58033.1  (AP003363) hypothetical protein [ <i>Staphylococcus aureus</i> subsp. <i>aureus</i> Mu50] | 6.1     |
| 5147  | 7243223  | gi 7243223 dbj BAA92659.1  (AB037842) KIAA1421 protein [ <i>Homo sapiens</i> ]  | 6E-96   |
| 5148  | 14771907 | gi 14771907 ref XP_045594.1  hypothetical protein MGC4816 [ <i>Homo sapiens</i> ]   | 5E-30   |
| 5163  | 6056374  | gi 6056374 gb AAF02838.1 AC009894_9 (AC009894) Similar to serine/threonine kinases [ <i>Arabidopsis thaliana</i> ]  | 9.5     |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5164  | 6322278  | gi 6322278 ref NP_012352.1  mannosyltransferase complex component; Mnn11p [Saccharomyces cerevisiae] sp P46985 YJS3_YEAST HYPOTHETICAL 47.8 KD PROTEIN IN SWE1-ATP12 INTERGENIC REGION pir  S56966 probable membrane protein YJL183w - yeast (Saccharomyces cerevisiae) emb CAA89478.1  (Z49458) ORF YJL183w [Saccharomyces cerevisiae] | 0.5     |
| 5168  | 14738479 | gi 14738479 ref XP_027836.1  general transcription factor IIIC, polypeptide 4 (90kD) [Homo sapiens]   | 7       |
| 5169  | 4505321  | gi 4505321 ref NP_003862.1  myelin transcription factor 2; cerebrin-50 [Homo sapiens] pir  I52374 cerebrin-50 - human gb AAB34231.1  (S76853) cerebrin-50=cerebrospinal fluid protein [human, cerebral brain, Peptide, 435 aa] [Homo sapiens]   | 5       |
| 5171  | 14336722 | gi 14336722 gb AAK61254.1 AE006464_22 (AE006464) Similar to pre-pro-megakaryocyte potentiating factor precursor [Homo sapiens]  | 0.22    |
| 5173  | 13700778 | gi 13700778 dbj BAB42074.1  (AP003132) ORFID:SA0834~hypothetical protein, similar to lipopolysaccharide modification acyltransferase [Staphylococcus aureus subsp. aureus N315] dbj BAB57136.1  (AP003360) hypothetical protein [Staphylococcus aureus subsp. aureus Mu50]  | 5.7     |
| 5174  | 8894607  | gi 8894607 emb CAB94193.2  (AJ289710) envelope protein [HERV-H/env60]   | 0.0002  |
| 5176  | 14772400 | gi 14772400 ref XP_045944.1  hypothetical protein XP_045944 [Homo sapiens]  | 2.5     |
| 5181  | 8248741  | gi 8248741 gb AAB20211.2  (S61973) NMDA receptor glutamate-binding subunit [Rattus sp.]   | 7.4     |
| 5186  | 12329963 | gi 12329963 emb CAC24680.1  (AL513062) possible high molecular mass nuclear antigen [Leishmania major]  | 9.7     |
| 5187  | 3915815  | gi 3915815 sp Q45032 PRIA_BORBU PRIMOSOMAL PROTEIN N' (REPLICATION FACTOR Y) pir  F70101 primosomal protein N (priA) homolog - Lyme disease spirochete gb AAC66393.1  (AE001115) primosomal protein N (priA) [Borrelia burgdorferi]   | 0.86    |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5191  | 7516796  | gi 7516796 pir H72575 hypothetical protein APE1888 - Aeropyrum pernix (strain K1) dbj BAA80893.1  (AP000062) 107aa long hypothetical protein [Aeropyrum pernix]   | 9.9     |
| 5192  | 4691710  | gi 4691710 gb AAD28038.1 AF119712_1 (AF119712) bone morphogenetic protein BMP2/4 [Lytechinus variegatus]  | 4.5     |
| 5198  | 10639274 | gi 10639274 emb CAC11276.1  (AL445063) amylopullulanase related protein [Thermoplasma acidophilum]  | 2.4     |
| 5199  | 10998836 | gi 10998836 gb AAG26008.1 AF312017_1 (AF312017) beta-glucosidase precursor [Tenebrio molitor]   | 3.1     |
| 5205  | 7657228  | gi 7657228 ref NP_055258.1  interleukin 17B [Homo sapiens] ref XP_003898.3  50367 [Homo sapiens] ref XP_046987.1  interleukin 17B [Homo sapiens] ref XP_046984.1  interleukin 17B [Homo sapiens] ref XP_046985.1  interleukin 17B [Homo sapiens] ref XP_046986.1  50372 [Homo sapiens] gb AAF01318.1 AF184969_1 (AF184969) cytokine-like protein ZCYTO7 [Homo sapiens] gb AAF28104.1 AF152098_1 (AF152098) interleukin 17B [Homo sapiens] gb AAF78775.1 AF212311_1 (AF212311) interleukin 20 [Homo sapiens] gb AAG39637.1 AF110385_1 (AF110385) interleukin-17 beta; IL-17 beta [Homo sapiens] gb AAG44136.1 AF218727_1 (AF218727) neuronal interleukin-17 related factor [Homo sapiens] gb AAK60336.1 AF386077_1 (AF386077) interleukin 17B [Homo sapiens] | 5.5     |
| 5207  | 12311878 | gi 12311878 emb CAC22694.1  (AL389894) hypothetical protein L779.02 [Leishmania major]  | 1.6     |

**Table 3B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5208  | 7657683  | gi 7657683 ref NP_055146.1  solute carrier family 7, (cationic amino acid transporter, y+ system) member 11; cystine/glutamate transporter [Homo sapiens]<br>sp Q9UPY5 XCT_HUMAN CYSTINE/GLUTAMATE TRANSPORTER (AMINO ACID TRANSPORT SYSTEM XC-) (XCT) dbj BAA82628.1  (AB026891) cystine/glutamate transporter [Homo sapiens]<br>gb AAG35592.1 AF200708_1 (AF200708) calcium channel blocker resistance protein CCBR1 [Homo sapiens] gb AAK49111.1 AF252872_1 (AF252872) cystine/glutamate transporter xCT [Homo sapiens] | 2.2     |
| 5212  | 2388574  | gi 2388574 gb AAB71455.1  (AC000098) Strong similarity to Phalaenopsis homeobox protein (gb U34743). [Arabidopsis thaliana]  | 7       |
| 5221  | 14740481 | gi 14740481 ref XP_045136.1  similar to cadherin related 23 (H. sapiens) [Homo sapiens]  | 1E-18   |
| 5222  | 12852452 | gi 12852452 dbj BAB29417.1  (AK014534) putative [Mus musculus]   | 8E-21   |
| 5224  | 2119250  | gi 2119250 pir  I38857 microtubule-associated protein 1A - human gb AAA81362.1  (U14577) microtubule-associated protein 1A [Homo sapiens]  | 0.99    |
| 5226  | 1304610  | gi 1304610 gb AAC59915.1  (U41783) cytochrome b [Cynolebias affinis]   | 4.7     |
| 5227  | 12311878 | gi 12311878 emb CAC22694.1  (AL389894) hypothetical protein L779.02 [Leishmania major]   | 1.3     |
| 5228  | 6650047  | gi 6650047 gb AAF21692.1 AF051987_1 (AF051987) maturase K [Hyobanche sanguinea]  | 1.9     |
| 5232  | 3859671  | gi 3859671 emb CAA22009.1  (AL033502) hypothetical protein [Candida albicans]  | 0.0009  |
| 5240  | 9963891  | gi 9963891 gb AAG09748.1 AF233276_1 (AF233276) peroxin-1 [Penicillium chrysogenum]   | 9.3     |
| 5242  | 3024924  | gi 3024924 sp Q58315 Y905_METJA HYPOTHETICAL PROTEIN MJ0905 pir  A64413 hypothetical protein MJ0905 - Methanococcus jannaschii gb AAB98915.1  (U67534) M. jannaschii predicted coding region MJ0905 [Methanococcus jannaschii]   | 1.8     |
| 5245  | 11279021 | gi 11279021 pir  T47996 hypothetical protein F21F14.210 - Arabidopsis thaliana emb CAB71911.1  (AL138642) putative protein [Arabidopsis thaliana]  | 5.2     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5255  | 2746323  | gi 2746323 gb AAB97896.1  (AF037166) major surface glycoprotein [ <i>Leishmania panamensis</i> ]  | 2.2     |
| 5260  | 7506750  | gi 7506750 pir T16770 hypothetical protein R153.2 - <i>Caenorhabditis elegans</i> gb AAA68293.1  (U28729) Hypothetical protein R153.2 [ <i>Caenorhabditis elegans</i> ]   | 4.1     |
| 5264  | 14737112 | gi 14737112 ref XP_046972.1  hypothetical protein XP_046972 [ <i>Homo sapiens</i> ]   | 3.4     |
| 5266  | 7432465  | gi 7432465 pir T13677 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 5 - <i>Santolina chamaecyparissus</i> chloroplast gb AAC37776.1  (L39444) NADH dehydrogenase [ <i>Santolina chamaecyparissus</i> ]   | 8.1     |
| 5267  | 9845030  | gi 9845030 dbj BAB11914.1  (AB034726) 5-oxoprolinase precursor [ <i>Alcaligenes faecalis</i> ]  | 6.8     |
| 5268  | 7429144  | gi 7429144 pir GNMSLL retrovirus-related reverse transcriptase homolog - mouse retrotransposon gb AAA66024.1  (M13002) 2855 is the position of the first start codon in ORF 2; putative [ <i>Mus musculus</i> ]                                       | 0.0003  |
| 5269  | 6689319  | gi 6689319 emb CAB65444.1  (AJ238583) penicillin binding protein 2x [ <i>Streptococcus pneumoniae</i> ]   | 0.37    |
| 5274  | 7522099  | gi 7522099 pir T28658 polyketide synthase - <i>Sorangium cellulosum</i> (fragment)  | 3.9     |
| 5278  | 13786182 | gi 13786182 ref NP_112634.1  delta-6 fatty acid desaturase [ <i>Rattus norvegicus</i> ] pir JG0180 Delta6 fatty acid desaturase (EC 1.14.99.-) [imported] - rat dbj BAA75496.1  (AB021980) delta-6 fatty acid desaturase [ <i>Rattus norvegicus</i> ] | 4E-12   |
| 5279  | 7674158  | gi 7674158 sp O76942 PTP_ENCCU MAJOR POLAR TUBE PROTEIN PRECURSOR (MAJOR PTP) emb CAA06662.1  (AJ005666) polar tube protein [ <i>Encephalitozoon cuniculi</i> ]   | 1.2     |
| 5280  | 10726396 | gi 10726396 gb AAF54288.2  (AE003680) CG11773 gene product [ <i>Drosophila melanogaster</i> ]   | 1.1     |
| 5282  | 14767779 | gi 14767779 ref XP_007023.2  G protein-coupled receptor kinase-interactor 2 [ <i>Homo sapiens</i> ] gb AAD28047.1 AF124491_1 (AF124491) ARF GTPase-activating protein GIT2 [ <i>Homo sapiens</i> ]  | 4E-13   |
| 5284  | 14602920 | gi 14602920 gb AAH09955.1 AAH09955 (BC009955) Unknown (protein for IMAGE:4297851) [ <i>Homo sapiens</i> ]   | 1.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |          |
|---|----------|--|----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE  |
| 5287  | 7487876  | gi 7487876 pir T02741 hypothetical protein T9I4.19 - Arabidopsis thaliana gb AAC33237.1  (AC005315) putative ligand-gated ion channel protein [Arabidopsis thaliana]   | 9.9      |
| 5288  | 14423780 | gi 14423780 sp O95013 O4F3_HUMAN OLFACTORY RECEPTOR 4F3 gb AAD05195.1  (AC004908) similar to rat olfactory receptor OR18; similar to S29710 (PID:g423702) [Homo sapiens]   | 0.000002 |
| 5290  | 14764967 | gi 14764967 ref XP_049605.1  KIAA1467 protein [Homo sapiens]   | 0.00003  |
| 5291  | 7496712  | gi 7496712 pir T15708 hypothetical protein C30B5.1 - Caenorhabditis elegans gb AAK31466.1  (U23450) Hypothetical protein C30B5.1 [Caenorhabditis elegans]  | 2.6      |
| 5292  | 4468835  | gi 4468835 emb CAB38221.1  (AJ232783) hairless [Drosophila hydei]  | 1.3      |
| 5298  | 7481600  | gi 7481600 pir T36589 probable transmembrane protein - Streptomyces coelicolor emb CAB42730.1  (AL049826) putative transmembrane protein [Streptomyces coelicolor A3(2)]   | 5.6      |
| 5301  | 4885323  | gi 4885323 ref NP_005293.1  G protein-coupled receptor 37 (endothelin receptor type B-like); endothelin receptor type B-like; hET(B)R-LP [Homo sapiens] ref XP_004804.1  G protein-coupled receptor 37 (endothelin receptor type B-like) [Homo sapiens] ref XP_032150.1  58490 [Homo sapiens] ref XP_032151.1  G protein-coupled receptor 37 (endothelin receptor type B-like) [Homo sapiens] sp O15354 GP37_HUMAN PROBABLE G PROTEIN-COUPLED RECEPTOR GPR37 PRECURSOR (ENDOTHELIN B RECEPTOR-LIKE PROTEIN-1) (ETBR-LP-1) emb CAA73080.1  (Y12476) G protein coupled receptor 37 [Homo sapiens] gb AAD08853.1  (AC004925) G protein coupled receptor 37 [Homo sapiens] | 1.9      |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5304  | 11467524 | gi 11467524 ref NP_043670.1  PSI, subunit III, plastocyanin-binding [Odontella sinensis]<br>sp P49483 PSAF_ODOSI PHOTOSYSTEM I REACTION CENTRE SUBUNIT III (PSI-F)<br>pir  S78329 photosystem I chain III - Odontella sinensis chloroplast emb CAA91702.1  (Z67753) PSI, subunit III, plastocyanin-binding [Odontella sinensis] | 6.2     |
| 5306  | 7292767  | gi 7292767 gb AAF48162.1  (AE003489) CG15927 gene product [Drosophila melanogaster]   | 6.3     |
| 5309  | 14601766 | gi 14601766 ref NP_148307.1  hypothetical protein [Aeropyrum permix] pir  C72501 hypothetical protein APE1985 - Aeropyrum permix (strain K1)<br>dbj BAA80995.1  (AP000063) 160aa long hypothetical protein [Aeropyrum permix]   | 1.8     |
| 5310  | 13661965 | gi 13661965 gb AAK38127.1 AC058781_4 (AC058781) L344.4 [Leishmania major]   | 7.1     |
| 5312  | 6320879  | gi 6320879 ref NP_010958.1  Transcriptional activator of nitrogen-regulated genes; Gln3p [Saccharomyces cerevisiae] sp P18494 GLN3_YEAST NITROGEN REGULATORY PROTEIN GLN3 pir  S50543 GLN3 protein - yeast (Saccharomyces cerevisiae)<br>gb AAB64575.1  (U18796) Gln3p: Nitrogen regulatory protein [Saccharomyces cerevisiae]  | 8.5     |
| 5313  | 4493990  | gi 4493990 emb CAB39049.1  (AL034559) hypothetical protein, PFC1045c [Plasmodium falciparum]  | 0.74    |
| 5314  | 10047245 | gi 10047245 dbj BAB13411.1  (AB046805) KIAA1585 protein [Homo sapiens]  | 2E-69   |
| 5317  | 14762995 | gi 14762995 ref XP_044123.1  cadherin 20, type 2 [Homo sapiens]   | 4E-17   |
| 5321  | 14773348 | gi 14773348 ref XP_038450.1  20849 [Homo sapiens]   | 3E-45   |
| 5326  | 4691710  | gi 4691710 gb AAD28038.1 AF119712_1 (AF119712) bone morphogenetic protein BMP2/4 [Lytechinus variegatus]  | 5.4     |
| 5328  | 13161382 | gi 13161382 dbj BAB32977.1  (AB034197) lamin B3 [Carassius auratus]   | 6.9     |
| 5333  | 12654811 | gi 12654811 gb AAH01248.1 AAH01248 (BC001248) hypothetical protein FLJ20272 [Homo sapiens]  | 6.2     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5334  | 4504455  | gi 4504455 ref NP_000183.1  T-box 5 [Homo sapiens]<br>emb CAA70592.1  (Y09445) transcription factor [Homo sapiens]  | 2.5     |
| 5337  | 6642649  | gi 6642649 gb AAF20230.1 AC012395_17 (AC012395)<br>putative glucan synthase [Arabidopsis thaliana]  | 1.7     |
| 5342  | 7330072  | gi 7330072 gb AAF60061.1 AF210726_82 (AF210726)<br>ORFRU4-R [Macaca mulatta rhadinovirus 26-95]   | 0.012   |
| 5344  | 90587    | gi 90587 pir PS0135 H-2 class I histocompatibility<br>antigen T7 - mouse (fragment) emb CAA34332.1 <br>(X16213) MHC T7 class I antigen (64 AA) (119 is 2nd<br>base in codon) [Mus musculus]   | 6.4     |
| 5345  | 14749813 | gi 14749813 ref XP_041197.1  integrin, alpha 11 [Homo<br>sapiens]   | 0.48    |
| 5348  | 2143962  | gi 2143962 pir I59422 rsec8 - rat (fragment)<br>gb AAC52265.1  (U32498) rsec8 [Rattus norvegicus]   | 3E-96   |
| 5349  | 7549797  | gi 7549797 ref NP_035731.1  T lymphoma oncogene<br>[Mus musculus] sp P17408 TLM_MOUSE TLM<br>PROTEIN (TLM ONCOGENE) pir S10151<br>transforming protein tlm - mouse (strain balb/c)<br>emb CAA36859.1  (X52634) tlm protein [Mus<br>musculus]  | 1.9     |
| 5351  | 7505043  | gi 7505043 pir T33641 hypothetical protein K01A2.7 -<br>Caenorhabditis elegans gb AAC69507.1  (AF099925)<br>Hypothetical protein K01A2.7 [Caenorhabditis elegans]   | 0.71    |
| 5357  | 6677735  | gi 6677735 ref NP_033084.1  ral guanine nucleotide<br>dissociation stimulator [Mus musculus]<br>sp Q03385 GNDS_MOUSE RAL GUANINE<br>NUCLEOTIDE DISSOCIATION STIMULATOR<br>(RALGEF) (RALGDS) pir S28415 guanine nucleotide<br>dissociation stimulator ralGDS - mouse<br>gb AAA37714.1  (L07924) guanine nucleotide<br>dissociation stimulator [Mus musculus] | 4       |
| 5360  | 11499595 | gi 11499595 ref NP_070837.1  coenzyme F390<br>synthetase (ftsA-3) [Archaeoglobus fulgidus]<br>pir D69501 coenzyme F390 synthetase (ftsA-3)<br>homolog - Archaeoglobus fulgidus gb AAB89243.1 <br>(AE000964) coenzyme F390 synthetase (ftsA-3)<br>[Archaeoglobus fulgidus]   | 4.8     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5365  | 12383066 | gi 12383066 ref NP_073737.1  hypothetical protein DKFZp586F1122 similar to axotrophin [Homo sapiens] ref XP_016117.2  hypothetical protein DKFZp586F1122 similar to axotrophin [Homo sapiens] dbj BAB14340.1  (AK022973) unnamed protein product [Homo sapiens]   | 8E-61   |
| 5368  | 7500833  | gi 7500833 pir  T21991 hypothetical protein F39B2.10 - Caenorhabditis elegans emb CAB07390.1  (Z92834) contains similarity to Pfam domain: PF00226 (DnaJ domain), Score=132.3, E-value=2.8e-36, N=1; PF00684 (DnaJ central domain (4 repeats)), Score=103.9, E-value=9.9e-28, N=1; PF01556 (DnaJ C terminal region), Score=35.8, E-value=1.5e-08, N=1~cDNA> | 3.2     |
| 5370  | 11499595 | gi 11499595 ref NP_070837.1  coenzyme F390 synthetase (ftsA-3) [Archaeoglobus fulgidus] pir  D69501 coenzyme F390 synthetase (ftsA-3) homolog - Archaeoglobus fulgidus gb AAB89243.1  (AE000964) coenzyme F390 synthetase (ftsA-3) [Archaeoglobus fulgidus]   | 5.5     |
| 5371  | 11387290 | gi 11387290 sp P57436 Y355_BUCAI PUTATIVE DEOXYRIBONUCLEASE BU355 dbj BAB13059.1  (AP001119) hypothetical protein [Buchnera sp. APS]  | 7.1     |
| 5374  | 8923462  | gi 8923462 ref NP_060317.1  hypothetical protein FLJ20505 [Homo sapiens] dbj BAA91218.1  (AK000512) unnamed protein product [Homo sapiens]  | 5E-76   |
| 5376  | 7491381  | gi 7491381 pir  T39498 hypothetical protein SPBC1604.16c - fission yeast (Schizosaccharomyces pombe) emb CAA22349.1  (AL034433) hypothetical protein [Schizosaccharomyces pombe]  | 5.1     |
| 5378  | 5835229  | gi 5835229 ref NP_008273.1 ND4_10703 NADH dehydrogenase subunit 4 [Protopterus dolloi] pir  S68137 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 4 - Protopterus dolloi mitochondrion gb AAC38030.1  (L42813) NADH dehydrogenase subunit 4 [Protopterus dolloi]  | 7.9     |
| 5381  | 12861366 | gi 12861366 dbj BAB32182.1  (AK020701) putative [Mus musculus]  | 1E-20   |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5387  | 12957488 | gi 12957488 ref NP_075463.1  putative gene product [Homo sapiens] emb CAB42442.1  (AL049784) hypothetical protein [Homo sapiens]   | 1E-23   |
| 5390  | 13621158 | gi 13621158 ref NP_112433.1  NADH dehydrogenase subunit 1 [Tetradontophora bielanensis] gb AAK30952.1 AF272824_13 (AF272824) NADH dehydrogenase subunit 1 [Tetradontophora bielanensis]  | 8.5     |
| 5391  | 14720363 | gi 14720363 ref XP_042844.1  similar to ALU SUBFAMILY SC SEQUENCE CONTAMINATION WARNING ENTRY (H. sapiens) [Homo sapiens]  | 5.5     |
| 5399  | 14916308 | gi 14916308 gb AAK73874.1 U00067_3 (U00067) Hypothetical protein F54E7.3a [Caenorhabditis elegans]   | 7.6     |
| 5401  | 12856615 | gi 12856615 dbj BAB30727.1  (AK017396) putative [Mus musculus]   | 1E-91   |
| 5406  | 625580   | gi 625580 pir A49626 transregulatory protein IE-1 - Autographa californica nuclear polyhedrosis virus gb AAB29676.1  (S68091) IE-1=transregulatory protein [Autographa californica nuclear polyhedrosis virus AcNPV, tsB821, Peptide Mutant, 582 aa] [Autographa californica nucleopolyhedrovirus] | 2.9     |
| 5408  | 7511058  | gi 7511058 pir T27805 hypothetical protein ZK262.11 - Caenorhabditis elegans emb CAB16552.1  (Z99288) contains similarity to Pfam domain: PF01604 (7TM chemoreceptor), Score=138.5, E-value=3.8e-38, N=1 [Caenorhabditis elegans]  | 8       |
| 5412  | 5869818  | gi 5869818 emb CAB55575.1  (AJ249395) NADH-ubiquinone oxidoreductase subunit 6 [Globodera pallida]   | 0.36    |
| 5413  | 7492086  | gi 7492086 pir T41670 hypothetical zinc finger protein - fission yeast (Schizosaccharomyces pombe) emb CAA20703.1  (AL031530) hypothetical zinc finger protein; C3HC4 type (RING finger) family [Schizosaccharomyces pombe]  | 8.5     |
| 5416  | 6056374  | gi 6056374 gb AAF02838.1 AC009894_9 (AC009894) Similar to serine/threonine kinases [Arabidopsis thaliana]  | 9.5     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |          |
|---|----------|--|----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE  |
| 5417  | 7464490  | gi 7464490 pir E64666 hypothetical protein HP1173 - Helicobacter pylori (strain 26695) gb AAD08225.1  (AE000623) H. pylori predicted coding region HP1173 [Helicobacter pylori 26695]  | 4        |
| 5418  | 13812393 | gi 13812393 ref NP_113511.1  hypothetical protein [Guillardia theta] emb CAC27080.1  (AJ010592) hypothetical protein [Guillardia theta]  | 1.9      |
| 5420  | 6041669  | gi 6041669 ref NP_004538.2  NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 4 (15kD, B15) [Homo sapiens] ref XP_002929.1  NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 4 (15kD, B15) [Homo sapiens] ref XP_041367.1  NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 4 (15kD, B15) [Homo sapiens] sp O95168 NB5M_HUMAN NADH-UBIQUINONE OXIDOREDUCTASE B15 SUBUNIT (COMPLEX I-B15) (CI-B15) pir JE0383 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain NDUF4 - human gb AAD05421.1  (AF044957) NADH:ubiquinone oxidoreductase B15 subunit [Homo sapiens] gb AAH00855.1 AAH00855 (BC000855) NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 4 (15kD, B15) [Homo sapiens] | 0.00002  |
| 5422  | 7296624  | gi 7296624 gb AAF51905.1  (AE003600) CG10303 gene product [Drosophila melanogaster]  | 4.2      |
| 5429  | 6453299  | gi 6453299 emb CAA04499.2  (AJ001045) P-type cation-transporting ATPase [Blastocladiella emersonii]  | 6.2      |
| 5430  | 14784393 | gi 14784393 ref XP_033306.1  sodium channel, nonvoltage-gated 1 alpha [Homo sapiens]   | 7.6      |
| 5438  | 7657956  | gi 7657956 dbj BAA94876.1  (AB028668) ORF1 [TT virus]  | 3.4      |
| 5449  | 7206840  | gi 7206840 gb AAF39999.1  (AC006832) similar to a family of C. elegans proteins; see (GB:AF016684) [Caenorhabditis elegans]  | 6.3      |
| 5451  | 13636619 | gi 13636619 ref XP_002437.3  cAMP-regulated guanine nucleotide exchange factor II [Homo sapiens]   | 0.000001 |
| 5454  | 7303178  | gi 7303178 gb AAF58242.1  (AE003814) CG17390 gene product [Drosophila melanogaster]  | 3.1      |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |            |
|---|----------|---|------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE    |
| 5457  | 7446747  | gi 7446747 pir T07607 phosphate transport protein 2 - potato emb CAA67396.1  (X98891) inorganic phosphate transporter 2 [Solanum tuberosum]   | 4.2        |
| 5458  | 7471296  | gi 7471296 pir A75450 conserved hypothetical protein - Deinococcus radiodurans (strain R1)<br>gb AAF10584.1 AE001952_12 (AE001952) conserved hypothetical protein [Deinococcus radiodurans]   | 0.32       |
| 5460  | 11267150 | gi 11267150 pir A81338 H+/K+-exchanging ATPase (EC 3.6.1.36) B chain Cj0677 [imported] - Campylobacter jejuni (strain NCTC 11168)<br>emb CAB72951.1  (AL139076) potassium-transporting ATPase B chain [Campylobacter jejuni]  | 0.37       |
| 5467  | 1246530  | gi 1246530 emb CAA64368.1  (X94742) olfactory receptor 2 [Gallus gallus]  | 0.00000001 |
| 5475  | 1353257  | gi 1353257 gb AAB06234.1  (U26665) dimethyl sulphoxide reductase subunit B [Haemophilus influenzae]   | 4.2        |
| 5476  | 585053   | gi 585053 sp P37202 DIS3_SCHPO MITOTIC CONTROL PROTEIN DIS3 pir A41944 mitotic control protein dis3+ - fission yeast (Schizosaccharomyces pombe) gb AAA35302.1  (M74094) mitotic control protein [Schizosaccharomyces pombe] emb CAA21102.1  (AL031743) mitotic control protein dis3 [Schizosaccharomyces pombe]                        | 2.6        |
| 5477  | 7388318  | gi 7388318 sp Q9ZL01 THIE_HELPJ PROBABLE THIAMINE-PHOSPHATE PYROPHOSPHORYLASE (TMP PYROPHOSPHORYLASE) (TMP-PPASE) (THIAMINE-PHOSPHATE SYNTHASE) pir G71889 thiamin-phosphate pyrophosphorylase (EC 2.5.1.3) - Helicobacter pylori (strain J99) gb AAD06361.1  (AE001508) THIAMINE PHOSPHATE PYROPHOSPHORYLASE [Helicobacter pylori J99] | 7          |
| 5483  | 6754362  | gi 6754362 ref NP_035962.1  insulin receptor-related receptor [Mus musculus] dbj BAA77835.1  (AB007135) insulin receptor-related receptor [Mus musculus]  | 7.5        |

[illegible]

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5486  | 10697032 | gi 10697032 emb CAC12661.1  (AJ296086) cytochrome c oxidase subunit 1 [ <i>Anabaena variabilis</i> ]  | 0.96    |
| 5491  | 8919908  | gi 8919908 emb CAB96228.1  (AJ133067) env polypeptide [Human immunodeficiency virus type 1]   | 7.4     |
| 5496  | 7658073  | gi 7658073 dbj BAA94924.1  (AB028715) ORF1 [TT virus]   | 3.8     |
| 5500  | 9437326  | gi 9437326 gb AAF87312.1 AF124441_1 (AF124441) NBC-like protein [ <i>Rattus norvegicus</i> ]  | 6.5     |
| 5501  | 6707844  | gi 6707844 gb AAF25692.1  (AF113517) ventral anterior homeobox 3 [ <i>Xenopus laevis</i> ]  | 3.1     |
| 5502  | 12698075 | gi 12698075 dbj BAB21856.1  (AB051552) KIAA1765 protein [ <i>Homo sapiens</i> ]   | 1.9     |
| 5503  | 7673065  | gi 7673065 gb AAF66723.1 AF146723_1 (AF146723) cytochrome b [ <i>Tapinoma</i> sp. ACBJ.1]   | 4.2     |
| 5508  | 6754932  | gi 6754932 ref NP_035121.1  olfactory receptor 49 [ <i>Mus musculus</i> ] gb AAD13315.1  (AF102523) olfactory receptor C6 [ <i>Mus musculus</i> ]   | 8E-12   |
| 5512  | 7296803  | gi 7296803 gb AAF52080.1  (AE003604) CG2008 gene product [ <i>Drosophila melanogaster</i> ]   | 3.7     |
| 5514  | 5824783  | gi 5824783 emb CAB54433.1  (AL110487) contains similarity to Pfam domain: PF01529 (DHHC zinc finger domain), Score=108.2, E-value=5e-29, N=1~cDNA EST yk282d12.5 comes from this gene [ <i>Caenorhabditis elegans</i> ]   | 4.9     |
| 5516  | 14750790 | gi 14750790 ref XP_034677.1  general transcription factor II, i, isoform 5 [ <i>Homo sapiens</i> ] ref XP_011605.4  general transcription factor II, i, isoform 5 [ <i>Homo sapiens</i> ] ref XP_034678.1  similar to general transcription factor II, i (H. sapiens) [ <i>Homo sapiens</i> ] ref XP_034682.1  similar to general transcription factor II, i (H. sapiens) [ <i>Homo sapiens</i> ] | 4.2     |
| 5519  | 3327362  | gi 3327362 dbj BAA31704.1  (AB015754) cytochrome c oxidase subunit I [ <i>Spirometra erinaceieuropaei</i> ]   | 5.2     |
| 5520  | 14149807 | gi 14149807 ref NP_115517.1  hypothetical protein DKFZp434K1421 [ <i>Homo sapiens</i> ] emb CAB66740.1  (AL136806) hypothetical protein [ <i>Homo sapiens</i> ]   | 5E-53   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |            |
|---|----------|---|------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE    |
| 5521  | 10567777 | gi 10567777 gb AAG18583.1 AF292395_1 (AF292395) KRP170 [Strongylocentrotus purpuratus]  | 8.2        |
| 5524  | 5931705  | gi 5931705 emb CAB56603.1  (Y18890) pol protein [Human endogenous retrovirus K]   | 6.2        |
| 5528  | 11271464 | gi 11271464 pir  C82792 methionyl-tRNA synthetase XF0549 [imported] - Xylella fastidiosa (strain 9a5c) gb AAF83359.1 AE003902_4 (AE003902) methionyl-tRNA synthetase [Xylella fastidiosa 9a5c]            | 6.5        |
| 5530  | 2193879  | gi 2193879 emb CAA54180.1  (X76785) hypothetical protein [Homo sapiens]   | 8.7        |
| 5531  | 7292567  | gi 7292567 gb AAF47967.1  (AE003484) CG2186 gene product [Drosophila melanogaster]  | 6.7        |
| 5532  | 729093   | gi 729093 sp P39881 CUT1_CANFA CCAAT DISPLACEMENT PROTEIN (HOMEBOX PROTEIN CLOX) (CLOX-1) pir  S33121 homeotic protein CDP - dog (fragment) emb CAA48782.1  (X69017) Clox [Canis sp.]                     | 0.14       |
| 5534  | 13569850 | gi 13569850 ref NP_076357.1  RIKEN cDNA 9330127I20 [Mus musculus] gb AAG34081.1  (AF295105) cardiac Ca <sup>2+</sup> release channel [Mus musculus]   | 0.00000006 |
| 5535  | 14250321 | gi 14250321 gb AAH08590.1 AAH08590 (BC008590) hypothetical protein FLJ21313 [Homo sapiens]  | 1E-60      |
| 5536  | 2143962  | gi 2143962 pir  I59422 rsec8 - rat (fragment) gb AAC52265.1  (U32498) rsec8 [Rattus norvegicus]   | 3E-99      |
| 5539  | 13475196 | gi 13475196 ref NP_106760.1  transposase [Mesorhizobium loti] dbj BAB52546.1  (AP003008) transposase [Mesorhizobium loti]   | 5.6        |
| 5544  | 13376066 | gi 13376066 ref NP_079019.1  hypothetical protein FLJ21934 [Homo sapiens] ref XP_017673.2  hypothetical protein FLJ21934 [Homo sapiens] dbj BAB15179.1  (AK025587) unnamed protein product [Homo sapiens] | 1E-40      |
| 5545  | 13365831 | gi 13365831 dbj BAB39301.1  (AB056753) hypothetical protein [Macaca fascicularis]   | 4.7        |
| 5547  | 2865238  | gi 2865238 gb AAC38862.1  (U89706) DNA polymerase alpha [Urostyla grandis]  | 5.5        |
| 5548  | 14752983 | gi 14752983 ref XP_004626.3  hypothetical protein FLJ10377 [Homo sapiens]   | 2.5        |

**Table 3B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| <b>Table 3B</b> Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |                 |  |                |
|--|-----------------|--|----------------|
| <b>SEQ ID NO</b>   | <b>ACCESS N</b> | <b>DESCRIPTION</b>   | <b>P VALUE</b> |
| 5550   | 13489060        | gi 13489060 ref NP_109590.1  retinoic acid induced 1; hypothetical protein DKFZp434A139 [Homo sapiens] emb CAC20423.1  (AJ271790) retinoid-acid induced protein 1 [Homo sapiens]   | 1E-21          |
| 5556   | 7512077         | gi 7512077 pir T30878 dynein heavy chain isotype 4 - sea urchin ( <i>Tripneustes gratilla</i> ) (fragment) gb AAA63587.1  (U03973) dynein heavy chain isotype 4 [Tripneustes gratilla]                                     | 4E-27          |
| 5564   | 9971630         | gi 9971630 dbj BAB12582.1  (AB046525) polymerase protein [Hepatitis B virus]   | 9.1            |
| 5565   | 1072920         | gi 1072920 pir S49369 mobilization protein - <i>Campylobacter coli</i> plasmid pCCT1 and PCCT2 emb CAA57597.1  (X82080) Mob [Campylobacter coli] emb CAA57594.1  (X82079) mobilization protein [Campylobacter coli]        | 4.7            |
| 5568   | 12644030        | gi 12644030 sp Q28295 VWF_CANFA VON WILLEBRAND FACTOR PRECURSOR (VWF)  | 8.8            |
| 5572   | 9964333         | gi 9964333 ref NP_064801.1  AMV019 [Amsacta moorei entomopoxvirus] gb AAG02725.1 AF250284_19 (AF250284) AMV019 [Amsacta moorei entomopoxvirus]   | 8.3            |
| 5579   | 10436768        | gi 10436768 dbj BAB14906.1  (AK024391) unnamed protein product [Homo sapiens]  | 1.2            |
| 5580   | 13786443        | gi 13786443 gb AAK39568.1 AC025296_3 (AC025296) hypothetical protein [ <i>Oryza sativa</i> ]   | 0.75           |
| 5581   | 13376632        | gi 13376632 ref NP_079355.1  hypothetical protein FLJ23231 [Homo sapiens] dbj BAB15581.1  (AK026884) unnamed protein product [Homo sapiens] gb AAH05001.1 AAH05001 (BC005001) hypothetical protein FLJ23231 [Homo sapiens] | 0.58           |
| 5584   | 12641960        | gi 12641960 gb AAK00073.1 AF200382_1 (AF200382) cytochrome oxidase subunit I (COI) [ <i>Ceratosolen nanus</i> ]  | 4.9            |
| 5585   | 1708893         | gi 1708893 sp P51782 LYC_TRIVU LYSOZYME C PRECURSOR (1,4-BETA-N-ACETYLMURAMIDASE C) gb AAB97109.1  (U40664) lysozyme [ <i>Trichosurus vulpecula</i> ]  | 2.3            |
| 5586   | 10047155        | gi 10047155 dbj BAB13371.1  (AB046765) KIAA1545 protein [Homo sapiens]   | 1.7            |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5587  | 7446806  | gi 7446806 pir F69791 conserved hypothetical protein yebB - Bacillus subtilis gb AAB62312.1  (U51115) unknown protein [Bacillus subtilis] emb CAB12456.1  (Z99107) similar to hypothetical proteins [Bacillus subtilis]   | 9.3     |
| 5591  | 400222   | gi 400222 sp P22533 MANB_CALSA BETA-MANNANASE/ENDOGLUCANASE A PRECURSOR [INCLUDES: MANNAN ENDO-1,4-BETA-MANNOSIDASE A (BETA-MANNANASE) (ENDO-1,4-MANNANASE); ENDO-1,4-BETA-GLUCANASE (CELLULASE)] pir A48954 mannan endo-1,4-beta-mannosidase (EC 3.2.1.78) - Caldocellum saccharolyticum gb AAA71887.1  (L01257) beta-mannanase [Caldicellulosiruptor saccharolyticus] | 8.6     |
| 5593  | 14029388 | gi 14029388 gb AAK52669.1 AF319948_1 (AF319948) MMS19 [Drosophila melanogaster]   | 7.7     |
| 5595  | 1196482  | gi 1196482 gb AAA88209.1  (M20307) unknown protein [Plasmid P1]   | 5.2     |
| 5599  | 14762995 | gi 14762995 ref XP_044123.1  cadherin 20, type 2 [Homo sapiens]   | 4E-17   |
| 5600  | 13383732 | gi 13383732 gb AAK21107.1 AF327877_3 (AF327877) envelope polypeptide [Equine infectious anemia virus]   | 3.7     |
| 5611  | 7521539  | gi 7521539 pir A70410 processing proteinase (EC 3.4.-.-) - Aquifex aeolicus gb AAC07272.1  (AE000732) processing protease [Aquifex aeolicus]  | 9.5     |
| 5612  | 14721452 | gi 14721452 ref XP_049513.1  48294 [Homo sapiens]   | 1       |
| 5615  | 13512594 | gi 13512594 gb AAK28688.1  (AF078553) unknown function U3 [Ehrlichia canis]   | 9.1     |
| 5618  | 7490184  | gi 7490184 pir T37997 carboxypeptidase y - fission yeast (Schizosaccharomyces pombe) pir T43236 carboxypeptidase C (EC 3.4.16.5) precursor [validated] fission yeast (Schizosaccharomyces pombe) emb CAB10121.1  (Z97209) carboxypeptidase y [Schizosaccharomyces pombe] dbj BAA25568.1  (D86560) carboxypeptidase Y [Schizosaccharomyces pombe]                        | 0.01    |
| 5619  | 11119139 | gi 11119139 gb AAG30518.1  (AF308549) immunoglobulin heavy chain [Homo sapiens]   | 1.1     |

**Table 3B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5622  | 7507209  | gi 7507209 pir T29623 hypothetical protein T05E8.3 - <i>Caenorhabditis elegans</i> gb AAB52427.1  (U97014) strong similarity to the 'DEAH' subfamily of the 'DEAD' box family of helicases [ <i>Caenorhabditis elegans</i> ]   | 0.7     |
| 5623  | 7484413  | gi 7484413 pir T08026 hypothetical protein B - <i>Chlamydomonas reinhardtii</i> chloroplast gb AAB05800.1  (U62943) unknown [ <i>Chlamydomonas reinhardtii</i> ]   | 9.3     |
| 5624  | 14766128 | gi 14766128 ref XP_038109.1  KIAA1683 protein [Homo sapiens] emb CAB66801.1  (AL136867) hypothetical protein [Homo sapiens]  | 0.15    |
| 5629  | 6491915  | gi 6491915 gb AAF14073.1 AF104231_1 (AF104231) paired-homeodomain transcription factor PAX4 [ <i>Mus musculus</i> ]  | 2.8     |
| 5630  | 14149940 | gi 14149940 ref NP_115610.1  hypothetical protein FLJ23059 [Homo sapiens] dbj BAB15536.1  (AK026712) unnamed protein product [Homo sapiens]  | 1E-10   |
| 5636  | 7500466  | gi 7500466 pir T21747 hypothetical protein F35C12.2 - <i>Caenorhabditis elegans</i>  | 3.7     |
| 5638  | 7490377  | gi 7490377 pir T41496 conserved hypothetical protein SPCC622.16c - fission yeast ( <i>Schizosaccharomyces pombe</i> ) emb CAA21872.1  (AL033127) conserved hypothetical protein [ <i>Schizosaccharomyces pombe</i> ]   | 6.3     |
| 5642  | 6322907  | gi 6322907 ref NP_012980.1  heavy chain of cytoplasmic dynein; Dyn1p [ <i>Saccharomyces cerevisiae</i> ] sp P36022 DYHC_YEAST DYNEIN HEAVY CHAIN, CYTOSOLIC (DYHC) pir S38128 dynein heavy chain, cytosolic - yeast ( <i>Saccharomyces cerevisiae</i> ) emb CAA82132.1  (Z28279) ORF YKR054c [ <i>Saccharomyces cerevisiae</i> ] | 4       |
| 5646  | 7594617  | gi 7594617 emb CAB88111.1  (AL078581) dJ12G14.1 (novel cyclophilin type peptidyl-prolyl cis-trans isomerase) [Homo sapiens]  | 8E-73   |
| 5647  | 14916439 | gi 14916439 ref NP_149094.1  rhophilin-like protein [Homo sapiens] gb AAK58588.1 AF268032_1 (AF268032) rhophilin-like protein [Homo sapiens]   | 2E-14   |



| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |             |
|---|----------|---|-------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE     |
| 5648  | 7227910  | gi 7227910 sp O77408 OAR1_LYMST OCTOPAMINE RECEPTOR 1 (OA1) gb AAC61296.1  (U62771) octopamine receptor type 1 [ <i>Lymnaea stagnalis</i> ]   | 5.5         |
| 5649  | 13161815 | gi 13161815 emb CAC32956.1  (AJ293063) cytochrome oxidase I [ <i>Aleochara punctatella</i> ]  | 7.9         |
| 5651  | 13631750 | gi 13631750 ref XP_010294.3  arylsulfatase E precursor [ <i>Homo sapiens</i> ]  | 2E-12       |
| 5653  | 9181886  | gi 9181886 gb AAF85678.1 AF266288_4 (AF266288) C protein [Measles virus]  | 3.3         |
| 5654  | 14755042 | gi 14755042 ref XP_045122.1  KIAA1451 protein [ <i>Homo sapiens</i> ]   | 0.000000005 |
| 5655  | 9408429  | gi 9408429 gb AAF87294.1  (AF228467) unknown [ <i>Letharia vulpina</i> ]  | 2.4         |
| 5656  | 14530763 | gi 14530763 emb CAC42469.1  (AL137139) bA134O15.1 (similar to citrate lyase) [ <i>Homo sapiens</i> ]  | 2E-11       |
| 5661  | 2496882  | gi 2496882 sp Q11187 YPD8_CAEEL HYPOTHETICAL 99.0 KD PROTEIN C05D11.8 IN CHROMOSOME III gb AAB53828.1  (U00048) C05D11.8 gene product [ <i>Caenorhabditis elegans</i> ]                               | 4.9         |
| 5663  | 1276867  | gi 1276867 gb AAA97866.1  (U40233) alkane hydroxylase [ <i>Stenotrophomonas maltophilia</i> ]   | 8.2         |
| 5664  | 4867907  | gi 4867907 dbj BAA77721.1  (AB008177) hepatic nuclear factor 1-beta short form [ <i>Mus musculus</i> ]  | 3.8         |
| 5667  | 7292501  | gi 7292501 gb AAF47904.1  (AE003481) CG11345 gene product [ <i>Drosophila melanogaster</i> ]  | 3.9         |
| 5673  | 1346543  | gi 1346543 sp P49285 ML1A_CHICK MELATONIN RECEPTOR TYPE 1A (MEL-1A-R) (CKA) gb AAA92498.1  (U31820) Mel-1a melatonin receptor [ <i>Gallus gallus</i> ]  | 7           |
| 5675  | 14731714 | gi 14731714 ref XP_028009.1  KIAA1563 protein [ <i>Homo sapiens</i> ]   | 4E-26       |
| 5676  | 9628467  | gi 9628467 ref NP_043350.1  putative [Human papillomavirus type 21] gb AAA79398.1  (U31779) putative [Human papillomavirus type 21]   | 1.2         |
| 5680  | 13241978 | gi 13241978 gb AAK16497.1 AF329199_1 (AF329199) CocoaCrisp [ <i>Gallus gallus</i> ]   | 1.9         |
| 5681  | 11466217 | gi 11466217 ref NP_066540.1  SecY-independent transporter protein [ <i>Naegleria gruberi</i> ] gb AAG17818.1 AF288092_43 (AF288092) SecY-independent transporter protein [ <i>Naegleria gruberi</i> ] | 4.2         |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5682  | 10581459 | gi 10581459 gb AAG20194.1  (AE005096) enoyl-CoA hydratase; Fad1 [Halobacterium sp. NRC-1]  | 5       |
| 5684  | 4903124  | gi 4903124 dbj BAA78009.1  (AB027308) nucleotide-binding protein [Plasmid R64]   | 3.1     |
| 5685  | 13242251 | gi 13242251 ref NP_077336.1  hairy and enhancer of split 1, (Drosophila) [Rattus norvegicus] sp Q04666 HES1_RAT TRANSCRIPTION FACTOR HES-1 (HAIRY AND ENHANCER OF SPLIT 1) (HAIRY-LIKE) (RHL) pir S36748 transcription factor HES-1 - rat dbj BAA02682.1  (D13417) HES-1 factor [Rattus norvegicus] prf 1905315A HES-1 protein [Rattus norvegicus] | 9.4     |
| 5689  | 9957880  | gi 9957880 gb AAG03352.1  (AY005440) 51-kDa antigen [Ehrlichia risticii]   | 6.9     |
| 5691  | 7509017  | gi 7509017 pir T33819 hypothetical protein W05F2.7 - Caenorhabditis elegans gb AAC78217.1  (AF106582) Hypothetical protein W05F2.7 [Caenorhabditis elegans]  | 0.82    |
| 5692  | 1082343  | gi 1082343 pir S50832 atrophin-1 - human   | 0.05    |
| 5696  | 11595629 | gi 11595629 emb CAC18249.1  (AL451018) conserved hypothetical protein [Neurospora crassa]  | 3.6     |
| 5698  | 11465898 | gi 11465898 ref NP_066447.1  ATP synthase F0 subunit 6 [Ochromonas danica] gb AAG18413.1 AF287134_38 (AF287134) ATP synthase F0 subunit 6 [Ochromonas danica]  | 6.6     |
| 5699  | 13384736 | gi 13384736 ref NP_084514.1  dynein, cytoplasmic, heavy chain 1; dynein heavy chain, retrograde transport [Mus musculus] sp Q9JHU4 DYHC_MOUSE DYNEIN HEAVY CHAIN, CYTOSOLIC (DYHC) (CYTOPLASMIC DYNEIN HEAVY CHAIN) gb AAF91078.1  (AY004877) cytoplasmic dynein heavy chain [Mus musculus]  | 3E-12   |
| 5701  | 11431299 | gi 11431299 ref XP_007961.1  phosphorylase kinase, beta [Homo sapiens]   | 8.8     |
| 5704  | 7486830  | gi 7486830 pir T04917 hypothetical protein T10I14.190 - Arabidopsis thaliana emb CAA16786.1  (AL021712) putative protein [Arabidopsis thaliana] emb CAB79191.1  (AL161557) putative protein [Arabidopsis thaliana]   | 0.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |            |
|---|----------|---|------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE    |
| 5707  | 7470729  | gi 7470729 pir S75327 lysostaphin - Synechocystis sp. (strain PCC 6803) dbj BAA17241.1  (D90904)<br>lysostaphin [Synechocystis sp. PCC 6803]  | 8.8        |
| 5708  | 7330072  | gi 7330072 gb AAF60061.1 AF210726_82 (AF210726)<br>ORFRU4-R [Macaca mulatta rhadinovirus 26-95]   | 0.24       |
| 5711  | 14774911 | gi 14774911 ref XP_027365.1  ADP-ribosylation factor-like 6 interacting protein [Homo sapiens]  | 1E-11      |
| 5712  | 14721018 | gi 14721018 ref XP_051562.1  similar to agrin (H. sapiens) [Homo sapiens]   | 0.14       |
| 5716  | 6324014  | gi 6324014 ref NP_014084.1  F1FO ATPase assembly protein; Atp11p [Saccharomyces cerevisiae]<br>sp P32453 ATPS_YEAST ATP11 PROTEIN<br>PRECURSOR pir S51297 ATP11 protein - yeast (Saccharomyces cerevisiae) gb AAA34447.1  (M87006)<br>ATP11 protein [Saccharomyces cerevisiae]<br>emb CAA86381.1  (Z46259) ATP11 [Saccharomyces cerevisiae] emb CAA96245.1  (Z71591) ORF YNL315c [Saccharomyces cerevisiae] | 4.1        |
| 5718  | 12861848 | gi 12861848 dbj BAB32292.1  (AK021073) putative [Mus musculus]  | 0.07       |
| 5719  | 14744130 | gi 14744130 ref XP_045895.1  57406 [Homo sapiens]   | 1.4        |
| 5722  | 11612206 | gi 11612206 gb AAG37299.1  (AY009937) unknown [Sinorhizobium fredii]  | 7.4        |
| 5723  | 4494967  | gi 4494967 gb AAD21389.1  (AF083501) R11 [Macaca mulatta rhadinovirus 17577]<br>gb AAF60041.1 AF210726_62 (AF210726) vIRF [Macaca mulatta rhadinovirus 26-95]   | 3.3        |
| 5727  | 12644379 | gi 12644379 sp Q02099 RAD3_SCHPO DNA REPAIR PROTEIN RAD3 pir T39911 rad3 checkpoint protein - fission yeast (Schizosaccharomyces pombe)<br>emb CAB40165.1  (AL049558) rad3 checkpoint protein [Schizosaccharomyces pombe]   | 9.3        |
| 5732  | 7492633  | gi 7492633 pir T40241 probable guanine nucleotide exchange factor - fission yeast (Schizosaccharomyces pombe) emb CAB58155.1  (AL121815) putative guanine nucleotide exchange factor [Schizosaccharomyces pombe]  | 8.2        |
| 5737  | 10047255 | gi 10047255 dbj BAB13416.1  (AB046810) KIAA1590 protein [Homo sapiens]  | 0.00000002 |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |            |
|---|----------|---|------------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE    |
| 5742  | 2498204  | gi 2498204 sp Q05682 CALD_HUMAN CALDESMON (CDM) pir JH0628 caldesmon - human gb AAA58419.1  (M83216) caldesmon [Homo sapiens]                                       | 8E-23      |
| 5744  | 11037059 | gi 11037059 ref NP_036540.1  protein kinase C binding protein 1 [Homo sapiens] gb AAF71262.1  (AF233453) RACK-like protein PRKCBP1 [Homo sapiens]                   | 0.00000001 |
| 5746  | 14575679 | gi 14575679 gb AAK68690.1 AF156100_1 (AF156100) hemicentin [Homo sapiens]   | 1.9        |
| 5748  | 11466210 | gi 11466210 ref NP_066533.1  NADH dehydrogenase subunit 2 [Naegleria gruberi] gb AAG17811.1 AF288092_36 (AF288092) NADH dehydrogenase subunit 2 [Naegleria gruberi] | 8.2        |
| 5750  | 8096340  | gi 8096340 dbj BAA95898.1  (AB036737) RERE [Homo sapiens]   | 0.5        |
| 5751  | 14275752 | gi 14275752 emb CAC40032.1  (AJ310844) P-type ATPase [Hordeum vulgare]  | 0.53       |
| 5752  | 5834582  | gi 5834582 emb CAB55313.1  (AJ132948) rfg7 protein [Homo sapiens]   | 1.7        |
| 5754  | 13877921 | gi 13877921 gb AAK44038.1 AF370223_1 (AF370223) unknown protein [Arabidopsis thaliana]  | 4          |
| 5755  | 5869818  | gi 5869818 emb CAB55575.1  (AJ249395) NADH-ubiquinone oxidoreductase subunit 6 [Globodera pallida]  | 4.2        |
| 5756  | 7023033  | gi 7023033 dbj BAA91809.1  (AK001649) unnamed protein product [Homo sapiens]  | e-102      |
| 5757  | 14729667 | gi 14729667 ref XP_029101.1  KIAA0947 protein [Homo sapiens]  | 0.22       |
| 5758  | 14726213 | gi 14726213 ref XP_010556.3  PR domain containing 16 [Homo sapiens]   | 0.87       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5761  | 4757900  | gi 4757900 ref NP_004334.1  calreticulin precursor; Sicca syndrome antigen A (autoantigen Ro; calreticulin); autoantigen Ro [Homo sapiens] ref XP_032020.1  calreticulin precursor [Homo sapiens] ref XP_032023.1  calreticulin precursor [Homo sapiens] ref XP_032022.1  calreticulin precursor [Homo sapiens] ref XP_009055.3  calreticulin precursor [Homo sapiens] ref XP_032021.1  calreticulin precursor [Homo sapiens] sp P27797 CRTC_HUMAN CALRETICULIN PRECURSOR (CRP55) (CALREGULIN) (HACBP) (ERP60) (52 KDA RIBONUCLEOPROTEIN AUTOANTIGEN RO/SS-A) pir A37047 calreticulin precursor - human gb AAA51916.1  (M84739) calreticulin [Homo sapiens] gb AAA36582.1  (M32294) Ro ribonucleoprotein autoantigen (Ro/SS-A) precursor [Homo sapiens] gb AAB51176.1  (AD000092) calreticulin [Homo sapiens] gb AAH02500.1 AAH02500 (BC002500) calreticulin [Homo sapiens] gb AAH07911.1 AAH07911 (BC007911) calreticulin [Homo sapiens] | 5E-16   |
| 5762  | 14714688 | gi 14714688 gb AAH10485.1 AAH10485 (BC010485) Unknown (protein for MGC:7224) [Mus musculus]   | 1.1     |
| 5765  | 14751380 | gi 14751380 ref XP_041291.1  cAMP response element-binding protein CRE-BPa [Homo sapiens]   | 5E-14   |
| 5767  | 2105193  | gi 2105193 gb AAB57925.1  (U86889) hypothetical protein [Molluscum contagiosum virus subtype 1]   | 7.8     |
| 5771  | 13278418 | gi 13278418 gb AAH04019.1 AAH04019 (BC004019) Similar to mesoderm specific transcript [Mus musculus]  | 0.94    |
| 5772  | 14720481 | gi 14720481 ref XP_048811.1  hypothetical protein FLJ22116 [Homo sapiens] ref XP_048810.1  hypothetical protein FLJ22116 [Homo sapiens]   | 2E-23   |

| SEQ ID NO | ACCESS N | DESCRIPTION  | P VALUE |
|-----------|----------|--|---------|
| 5773      | 6321548  | gi 6321548 ref NP_011625.1  Ygr110wp [Saccharomyces cerevisiae] sp P53264 YG2V_YEAST HYPOTHETICAL 52.0 KD PROTEIN IN CLB6-SHY1 INTERGENIC REGION pir  S64418 hypothetical protein YGR110w - yeast (Saccharomyces cerevisiae) emb CAA97118.1  (Z72895) ORF YGR110w [Saccharomyces cerevisiae] | 2.4     |
| 5776      | 12853842 | gi 12853842 dbj BAB29864.1  (AK015480) putative [Mus musculus]   | 5.6     |
| 5778      | 13384736 | gi 13384736 ref NP_084514.1  dynein, cytoplasmic, heavy chain 1; dynein heavy chain, retrograde transport [Mus musculus] sp Q9JHU4 DYHC_MOUSE DYNEIN HEAVY CHAIN, CYTOSOLIC (DYHC) (CYTOPLASMIC DYNEIN HEAVY CHAIN) gb AAF91078.1  (AY004877) cytoplasmic dynein heavy chain [Mus musculus]  | 2E-92   |
| 5781      | 7498705  | gi 7498705 pir  T20640 hypothetical protein F09C3.3 - Caenorhabditis elegans   | 9.7     |
| 5782      | 11356402 | gi 11356402 pir  T44074 hypothetical protein [imported] - Staphylococcus aureus (fragment)   | 5.5     |
| 5783      | 10726396 | gi 10726396 gb AAF54288.2  (AE003680) CG11773 gene product [Drosophila melanogaster]   | 4.1     |
| 5784      | 11935116 | gi 11935116 gb AAG41977.1 AF311942_1 (AF311942) ethylene receptor [Carica papaya]  | 7.5     |
| 5787      | 4456467  | gi 4456467 emb CAB37294.1  (AJ011001) TM7XN1 protein [Homo sapiens]  | 3.8     |
| 5788      | 13676779 | gi 13676779 gb AAK38272.1 AF330197_1 (AF330197) Arkadia [Mus musculus]   | 2.2     |
| 5789      | 13676779 | gi 13676779 gb AAK38272.1 AF330197_1 (AF330197) Arkadia [Mus musculus]   | 2.3     |
| 5795      | 11024704 | gi 11024704 ref NP_061956.1  hypothetical protein FLJ11219 [Homo sapiens] dbj BAA92074.1  (AK002081) unnamed protein product [Homo sapiens]  | 8E-23   |
| 5797      | 13606086 | gi 13606086 gb AAK32948.1  (U41014) Hypothetical protein C06G1.1 [Caenorhabditis elegans]  | 8.3     |
| 5798      | 10728595 | gi 10728595 gb AAF52302.2  (AE003611) CG9011 gene product [Drosophila melanogaster]  | 8E-21   |
| 5799      | 12847975 | gi 12847975 dbj BAB27780.1  (AK011690) putative [Mus musculus]   | 3E-44   |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5801  | 7243247  | gi 7243247 dbj BAA92671.1  (AB037854) KIAA1433 protein [Homo sapiens]  | 3E-84   |
| 5803  | 10728595 | gi 10728595 gb AAF52302.2  (AE003611) CG9011 gene product [Drosophila melanogaster]  | 8E-21   |
| 5804  | 1354082  | gi 1354082 gb AAB37237.1  (U47033) polyprotein [bean yellow mosaic virus]  | 6.8     |
| 5808  | 11354734 | gi 11354734 pir C82043 conserved hypothetical protein VC2703 [imported] - Vibrio cholerae (group O1 strain N16961) gb AAF95843.1  (AE004336) conserved hypothetical protein [Vibrio cholerae]              | 4.9     |
| 5809  | 13272353 | gi 13272353 gb AAK17116.1 AF291051_13 (AF291051) transketolase [Candidatus Carsonella ruddii]  | 8.9     |
| 5810  | 10728595 | gi 10728595 gb AAF52302.2  (AE003611) CG9011 gene product [Drosophila melanogaster]  | 9E-21   |
| 5818  | 7340927  | gi 7340927 dbj BAA92999.1  (AP001550) Similar to Schizosaccharomyces pombe chromosome I cosmid c1D4; hypothetical protein &SPAC1D4_10 (Q10155) [Oryza sativa]  | 5.6     |
| 5821  | 4115911  | gi 4115911 gb AAD03423.1  (U78517) cAMP-regulated guanine nucleotide exchange factor II [Rattus norvegicus]  | 3E-11   |
| 5822  | 7498336  | gi 7498336 pir T15086 hypothetical protein E03D2.4 - Caenorhabditis elegans gb AAB94164.1  (AF039036) Hypothetical protein E03D2.4 [Caenorhabditis elegans]  | 7.1     |
| 5825  | 7492270  | gi 7492270 pir T40528 palmitoyl-protein thioesterase precursor - fission yeast (Schizosaccharomyces pombe) emb CAA19178.1  (AL023634) palmitoyl-protein thioesterase precursor [Schizosaccharomyces pombe] | 1.2     |
| 5827  | 7497138  | gi 7497138 pir T30158 hypothetical protein C37A2.6 - Caenorhabditis elegans gb AAB52451.1  (U97194) Hypothetical protein C37A2.6 [Caenorhabditis elegans]  | 5.4     |
| 5830  | 7469981  | gi 7469981 pir S74598 hypothetical protein sll1040 - Synechocystis sp. (strain PCC 6803) dbj BAA16750.1  (D90900) ORF_ID:sll1040~unknown protein [Synechocystis sp. PCC 6803]                              | 9.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5831  | 10177727 | gi 10177727 dbj BAB10973.1  (AB015471) gene_id:K9B18.6~unknown protein [Arabidopsis thaliana]  | 2.6     |
| 5834  | 2231323  | gi 2231323 gb AAB61999.1  (U77045) bactinecin 6 [Ovis aries]   | 6.9     |
| 5838  | 7495511  | gi 7495511 pir T18990 hypothetical protein C06B8.4 - Caenorhabditis elegans emb CAB03847.1  (Z81463) predicted using Genefinder~Similarity to C.elegans olfactory receptor ODR-10 (TR:Q17376), contains similarity to Pfam domain: PF01461 (7TM chemoreceptor), Score=-92.4, E-value=4.9e-10, N=1 [Caenorhabditis elegans] | 0.84    |
| 5839  | 14722156 | gi 14722156 ref XP_001418.4  centromere protein F (350/400kD) [Homo sapiens]   | 2       |
| 5841  | 14590902 | gi 14590902 ref NP_142975.1  hypothetical protein [Pyrococcus horikoshii] pir E71100 hypothetical protein PH1064 - Pyrococcus horikoshii dbj BAA30163.1  (AP000004) 718aa long hypothetical protein [Pyrococcus horikoshii]  | 3.5     |
| 5844  | 10173304 | gi 10173304 dbj BAB04409.1  (AP001509) transposase (04) [Bacillus halodurans]  | 2.2     |
| 5845  | 7510388  | gi 7510388 pir T27298 hypothetical protein Y68A4A.7 - Caenorhabditis elegans emb CAA16418.1  (AL021503) predicted using Genefinder~contains similarity to Pfam domain: PF01604 (7TM chemoreceptor), Score=-48.3, E-value=7.1e-07, N=1 [Caenorhabditis elegans]   | 2.9     |
| 5851  | 13812127 | gi 13812127 ref NP_113254.1  hypothetical protein [Guillardia theta] gb AAK39814.1 AF165818_22 (AF165818) hypothetical protein [Guillardia theta]  | 0.92    |
| 5852  | 6016842  | gi 6016842 dbj BAA85182.1  (AB033168) nuclear protein ZAP [Mus musculus]   | 3.3     |
| 5854  | 8922744  | gi 8922744 ref NP_060730.1  hypothetical protein FLJ10891 [Homo sapiens] dbj BAA91884.1  (AK001753) unnamed protein product [Homo sapiens]   | 8E-69   |



**Table 3B** Nearest Neighbor (BlastX vs. Non-Redundant Proteins)

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |           |
|---|----------|--|-----------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE   |
| 5856  | 118965   | gi 118965 sp P23098 DYHC_TRIGR DYNEIN BETA CHAIN, CILIARY pir  S17653 dynein beta heavy chain, ciliary - sea urchin (Tripneustes gratilla) emb CAA42170.1  (X59603) Beta heavy chain of outer-arm axonemal dynein ATPase [Tripneustes gratilla] prf  1714372A dynein:SUBUNIT=beta heavy chain [Tripneustes gratilla]             | 0.0000001 |
| 5858  | 10640323 | gi 10640323 emb CAC12137.1  (AL445066) conserved hypothetical membrane protein [Thermoplasma acidophilum]  | 1.3       |
| 5859  | 9964574  | gi 9964574 ref NP_065042.1  AMV260 [Amsacta moorei entomopoxvirus] gb AAG02966.1 AF250284_260 (AF250284) AMV260 [Amsacta moorei entomopoxvirus]  | 4         |
| 5861  | 5360226  | gi 5360226 dbj BAA36472.1  (AB015177) F0-ATPase subunit 6 [Beta vulgaris]  | 3         |
| 5868  | 7327641  | gi 7327641 gb AAF45040.2  (AF146609) putative modification methyltransferase [Aeromonas hydrophila]  | 2.8       |
| 5871  | 5031969  | gi 5031969 ref NP_005758.1  purinergic receptor (family A group 5) [Homo sapiens] sp P43657 P2Y5_HUMAN P2Y PURINOCEPTOR 5 (P2Y5) (PURINERGIC RECEPTOR 5) (RB INTRON ENCODED G-PROTEIN COUPLED RECEPTOR) pir  T09508 intron 17 purinergic receptor P2Y5 - human gb AAB62190.1  (AF000546) purinergic receptor P2Y5 [Homo sapiens] | 3.2       |
| 5872  | 92972    | gi 92972 pir  S04757 NADH dehydrogenase (ubiquinone) (EC 1.6.5.3) chain 5 - rat mitochondrion  | 9.8       |
| 5876  | 13540669 | gi 13540669 ref NP_110480.1  linker for activation of T cells [Rattus norvegicus] sp O70601 LAT_RAT LINKER FOR ACTIVATION OF T CELLS (36 KDA PHOSPHO-TYROSINE ADAPTOR PROTEIN) (PP36) (P36-38) emb CAA04577.1  (AJ001184) 36 kDa phospho-tyrosine [Rattus norvegicus]  | 0.4       |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5877  | 7510482  | gi 7510482 pir T27406 hypothetical protein Y75B8A.24 - <i>Caenorhabditis elegans</i> emb CAA22108.1  (AL033514) contains similarity to Pfam domain: PF00454 (Phosphatidylinositol 3- and 4-kinases), Score=392.3, E-value=1.6e-114, N=2; PF00613 (Phosphoinositide 3-kinase family, accessory domain (PIK domain)), Score=76.1, E-value=2.4e-19, N=1~cDNA EST yk2>        | 0.32    |
| 5881  | 11284162 | gi 11284162 pir H81077 hypothetical protein NMB1490 [imported] - <i>Neisseria meningitidis</i> (group B strain MD58) gb AAF41846.1  (AE002498) hypothetical protein [ <i>Neisseria meningitidis</i> MC58]   | 4.2     |
| 5882  | 4503801  | gi 4503801 ref NP_003893.1  far upstream element-binding protein; far upstream element binding protein; FUSE-binding protein [ <i>Homo sapiens</i> ] pir A53184 myc far upstream element-binding protein - human gb AAA17976.1  (U05040) FUSE binding protein [ <i>Homo sapiens</i> ]   | 0.4     |
| 5883  | 9929953  | gi 9929953 dbj BAB12133.1  (AB047609) hypothetical protein [ <i>Macaca fascicularis</i> ]   | 9.7     |
| 5884  | 13631383 | gi 13631383 ref XP_010272.2  retinoblastoma-binding protein 7 [ <i>Homo sapiens</i> ] ref XP_045112.1  retinoblastoma-binding protein 7 [ <i>Homo sapiens</i> ]   | 7.3     |
| 5886  | 7662084  | gi 7662084 ref NP_055474.1  KIAA0377 gene product [ <i>Homo sapiens</i> ] dbj BAA20831.1  (AB002375) KIAA0377 [ <i>Homo sapiens</i> ]   | 2E-44   |
| 5888  | 4507023  | gi 4507023 ref NP_003031.1  solute carrier family 4, anion exchanger, member 2 (erythrocyte membrane protein band 3-like 1) [ <i>Homo sapiens</i> ] sp P04920 B3A2_HUMAN ANION EXCHANGE PROTEIN 2 (NON-ERYTHROID BAND 3-LIKE PROTEIN) (BND3L) pir S21086 anion exchange protein 2 - human emb CAA44067.1  (X62137) anion exchange protein 2 (AE2) [ <i>Homo sapiens</i> ] | 9.1     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5892  | 6321764  | gi 6321764 ref NP_011840.1  Yhl023cp<br>[Saccharomyces cerevisiae] sp P38742 YHC3_YEAST<br>HYPOTHETICAL 130.0 KD PROTEIN IN SNF6-<br>SPO11 INTERGENIC REGION pir  S46837<br>hypothetical protein YHL023c - yeast (Saccharomyces<br>cerevisiae) gb AAB65076.1  (U11582) No definition line<br>found [Saccharomyces cerevisiae] | 7.4     |
| 5894  | 7507827  | gi 7507827 pir  T16876 hypothetical protein T14E8.3 -<br>Caenorhabditis elegans gb AAA82386.1  (U41036)<br>Hypothetical protein T14E8.3 [Caenorhabditis elegans]  | 2.4     |
| 5896  | 119714   | gi 119714 sp P13983 EXTN_TOBAC EXTENSIN<br>PRECURSOR (CELL WALL HYDROXYPROLINE-<br>RICH GLYCOPROTEIN) pir  S06733 hydroxyproline-<br>rich glycoprotein precursor - common tobacco<br>emb CAA32090.1  (X13885) extensin (AA 1-620)<br>[Nicotiana tabacum]  | 2.4     |
| 5897  | 13540669 | gi 13540669 ref NP_110480.1  linker for activation of T<br>cells [Rattus norvegicus] sp O70601 LAT_RAT<br>LINKER FOR ACTIVATION OF T CELLS (36 KDA<br>PHOSPHO-TYROSINE ADAPTOR PROTEIN)<br>(PP36) (P36-38) emb CAA04577.1  (AJ001184) 36 kDa<br>phospho-tyrosine [Rattus norvegicus]  | 0.4     |
| 5898  | 14787176 | gi 14787176 gb AAG54083.1  (AY017475) CSMD1<br>[Mus musculus]   | 0.5     |
| 5899  | 14192869 | gi 14192869 gb AAK55774.1 AC079038_8<br>(AC079038) Putative polyprotein [Oryza sativa]  | 1.9     |
| 5900  | 11260604 | gi 11260604 pir  G82485 acetate kinase VCA0235<br>[imported] - Vibrio cholerae (group O1 strain N16961)<br>gb AAF96146.1  (AE004363) acetate kinase [Vibrio<br>cholerae]  | 5.4     |
| 5914  | 5688864  | gi 5688864 dbj BAA82706.1  (AB030586) amino acid<br>transporter-like protein 1 [Arabidopsis thaliana]   | 0.74    |
| 5915  | 14571551 | gi 14571551 gb AAK64511.1  (AY036902) degenerative<br>spermatocyte-like protein RDES [Rattus norvegicus]  | 7.1     |
| 5917  | 11496539 | gi 11496539 ref NP_044549.1  ribosomal protein S3<br>[Toxoplasma gondii] gb AAD41136.1 U87145_5<br>(U87145) ribosomal protein S3 [Toxoplasma gondii]  | 2.4     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5919  | 12275264 | gi 12275264 emb CAC22282.1  (AJ303456) WASP interacting protein [Rattus norvegicus]   | 0.29    |
| 5920  | 7158837  | gi 7158837 gb AAF37557.1 AF214067_1 (AF214067) serine-repeat antigen protein [Plasmodium falciparum]  | 3.8     |
| 5922  | 7327641  | gi 7327641 gb AAF45040.2  (AF146609) putative modification methyltransferase [Aeromonas hydrophila]   | 3.2     |
| 5934  | 4321845  | gi 4321845 gb AAD15841.1  (AF064782) unknown [Mus musculus]   | 4E-59   |
| 5938  | 6562754  | gi 6562754 emb CAB62893.1  (AL035475) hypothetical protein, MAL4P2.52 [Plasmodium falciparum]   | 0.69    |
| 5939  | 13814462 | gi 13814462 gb AAK41504.1  (AE006741) ABC transporter, ATP binding protein [Sulfolobus solfataricus]  | 2.3     |
| 5941  | 5802786  | gi 5802786 gb AAD51779.1  (AF124511) BVES [Gallus gallus]   | 1.7     |
| 5943  | 5596342  | gi 5596342 dbj BAA82602.1  (AB026825) sALK-2 [Ephydatia fluviatilis]  | 7.2     |
| 5946  | 9802527  | gi 9802527 gb AAF99729.1 AC004557_8 (AC004557) F17L21.9 [Arabidopsis thaliana]  | 6.8     |
| 5949  | 3820854  | gi 3820854 emb CAA10852.1  (AJ222582) maturase-like protein [Euglena granulata]   | 4.2     |
| 5951  | 7476228  | gi 7476228 pir A70905 hypothetical protein Rv0174 - Mycobacterium tuberculosis (strain H37RV) emb CAB09741.1  (Z97050) hypothetical protein Rv0174 [Mycobacterium tuberculosis] | 0.46    |
| 5953  | 7159336  | gi 7159336 gb AAF37725.1 AF238235_1 (AF238235) diaphanous protein [Entamoeba histolytica]   | 0.24    |
| 5954  | 7294100  | gi 7294100 gb AAF49454.1  (AE003527) CG12243 gene product [Drosophila melanogaster]   | 4.6     |
| 5956  | 2689578  | gi 2689578 gb AAB91357.1  (U96421) cytochrome b [Dennyus carljonesi fosteri]  | 9.4     |
| 5957  | 11071788 | gi 11071788 emb CAC14632.1  (AL449144) hypothetical protein P214.26 [Leishmania major]  | 5.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 5958  | 9631305  | gi 9631305 ref NP_048116.1  ORF MSV045 hypothetical protein [Melanoplus sanguinipes entomopoxvirus] pir T28206 hypothetical protein ORF45 - Melanoplus sanguinipes entomopoxvirus gb AAC97618.1  (AF063866) ORF MSV045 hypothetical protein [Melanoplus sanguinipes entomopoxvirus] | 3       |
| 5959  | 14750752 | gi 14750752 ref XP_031441.1  phosphodiesterase 8A [Homo sapiens]  | 0.47    |
| 5962  | 4996347  | gi 4996347 dbj BAA78416.1  (AB021177) complement B/C2-A2 [Cyprinus carpio]  | 1.7     |
| 5964  | 7510076  | gi 7510076 pir T31613 hypothetical protein Y50E8A.i - Caenorhabditis elegans  | 7.1     |
| 5965  | 6958206  | gi 6958206 gb AAF32493.1 AF093132_1 (AF093132) kexin-like protease KEX1 [Pneumocystis carinii f. sp. muris]   | 4.5     |
| 5966  | 13542701 | gi 13542701 gb AAH05557.1 AAH05557 (BC005557) Unknown (protein for MGC:7062) [Mus musculus]   | 0.00003 |
| 5967  | 12852967 | gi 12852967 dbj BAB29595.1  (AK014872) putative [Mus musculus]  | 3.2     |
| 5969  | 6449214  | gi 6449214 gb AAF08856.1 AF194824_1 (AF194824) NADH dehydrogenase [Aptenia cordifolia]  | 0.84    |
| 5971  | 7492532  | gi 7492532 pir T39653 probable DNA repair and recombination protein - fission yeast (Schizosaccharomyces pombe) emb CAA21300.1  (AL031856) putative DNA repair and recombination protein [Schizosaccharomyces pombe]  | 8.4     |
| 5972  | 1171089  | gi 1171089 sp P10243 MYBA_HUMAN MYB-RELATED PROTEIN A (A-MYB) pir S03423 transforming protein A-myb - human   | 2E-28   |
| 5973  | 4589488  | gi 4589488 dbj BAA76772.1  (AB023145) KIAA0928 protein [Homo sapiens]   | 9.8     |
| 5974  | 6686326  | gi 6686326 sp P77589 MHPT_ECOLI PUTATIVE 3-HYDROXYPHENYLPROPIONIC ACID TRANSPORTER  | 1.8     |
| 5976  | 7298382  | gi 7298382 gb AAF53607.1  (AE003655) CG15141 gene product [Drosophila melanogaster]   | 5.7     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |  |         |
|---|----------|--|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION  | P VALUE |
| 5979  | 7477896  | gi 7477896 pir D70595 probable ATP-dependent RNA helicase - Mycobacterium tuberculosis (strain H37RV) emb CAB08305.1  (Z95120) rhIE [Mycobacterium tuberculosis] gb AAK47649.1  (AE007143) ATP-dependent RNA helicase DeaD [Mycobacterium tuberculosis CDC1551]                          | 4.7     |
| 5980  | 10726674 | gi 10726674 gb AAF55880.2  (AE003734) CG16791 gene product [Drosophila melanogaster]   | 5.5     |
| 5983  | 10303299 | gi 10303299 emb CAC10094.1  (AL442164) related to SEN1 protein [Neurospora crassa]   | 9.4     |
| 5984  | 14625441 | gi 14625441 dbj BAB61903.1  (AB053446) KIAA1773 protein [Homo sapiens]   | 2.4     |
| 5985  | 2496701  | gi 2496701 sp P55552 Y4LL_RHISN HYPOTHETICAL 91.8 KD PROTEIN Y4LL gb AAB91764.1  (AE000083) Y4IL [Rhizobium sp. NGR234]  | 4       |
| 5988  | 13652830 | gi 13652830 ref XP_017068.1  65851 [Homo sapiens] ref XP_039450.1  similar to NONHISTONE CHROMOSOMAL PROTEIN HMG-14 (H. sapiens) [Homo sapiens]  | 0.00001 |
| 5989  | 2098719  | gi 2098719 gb AAB57675.1  (U85709) putative fimbrial-associated protein [Actinomyces naeslundii]   | 5.4     |
| 5990  | 1142588  | gi 1142588 gb AAA84740.1  (U05313) CR3 [Trypanosoma brucei]  | 0.02    |
| 5991  | 11283273 | gi 11283273 pir A81658 hypothetical protein TC0845 [imported] - Chlamydia muridarum (strain Nigg) gb AAF39643.1  (AE002351) hypothetical protein [Chlamydia muridarum]   | 7.2     |
| 5992  | 13507856 | gi 13507856 ref NP_109805.1  ribosomal protein L20 [Mycoplasma pneumoniae] sp P78023 RL20_MYCPN 50S RIBOSOMAL PROTEIN L20 pir S73363 ribosomal protein L20 - Mycoplasma pneumoniae (strain ATCC 29342) gb AAG34734.1 AE000004_3 (AE000004) ribosomal protein L20 [Mycoplasma pneumoniae] | 0.84    |
| 5997  | 7506563  | gi 7506563 pir T24113 hypothetical protein R10D12.3 - Caenorhabditis elegans emb CAB03243.1  (Z81109) predicted using Genefinder~similar to G-protein coupled receptor [Caenorhabditis elegans]  | 6.3     |
| 5998  | 7510771  | gi 7510771 pir T29919 hypothetical protein ZC449.5 - Caenorhabditis elegans  | 3.6     |

| Table 3B Nearest Neighbor (BlastX vs. Non-Redundant Proteins) |          |   |         |
|---|----------|---|---------|
| SEQ ID NO   | ACCESS N | DESCRIPTION   | P VALUE |
| 6001  | 14755125 | gi 14755125 ref XP_006601.4  hypothetical protein FLJ10659 [Homo sapiens]   | 3E-96   |
| 6005  | 7508360  | gi 7508360 pir T25220 hypothetical protein T24B8.4 - Caenorhabditis elegans emb CAA92756.1  (Z68338) predicted using Genefinder~contains similarity to Pfam domain: PF02205 (Wiskott Aldrich syndrome homology region 2), Score=43.6, E-value=1.5e-09, N=2~cDNA EST yk96d7.5 comes from this gene~cDNA EST yk96d7.3 comes from this gene~cDNA EST yk76d1> | 1       |
| 6006  | 4960210  | gi 4960210 gb AAD34644.1 AF154112_1 (AF154112) transcription co-repressor Sin3 [Xenopus laevis]   | 7       |

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| Table 4<br>SEQ ID NO | SEQ NAME             | CLUSTER | PROFILE NAME        | DIR | SCORE  |
|----------------------|----------------------|---------|---------------------|-----|--------|
| 6                    | 2102.B18.gz43_275316 | 558147  | Ets_Cterm           | for | 19.58  |
| 9                    | 2103.M06.gz43_275519 | 377696  | protkinase          | for | 20.71  |
| 38                   | 2153.K14.gz43_278937 | 372952  | Dead_box_helic      | for | 172.21 |
| 39                   | 2154.M04.gz43_279163 | 377696  | protkinase          | for | 20.71  |
| 61                   | 2165.H06.gz43_280342 | 393635  | zf-c2h2             | for | 33.96  |
| 69                   | 2166.J11.gz43_281368 | 377696  | protkinase          | for | 20.71  |
| 108                  | 2118.A09.gz43_307025 | 446397  | bzip                | for | 19.15  |
| 117                  | 2131.I13.gz43_308085 | 34071   | wd40                | for | 37.45  |
| 118                  | 2131.B14.gz43_308094 | 221686  | protkinase          | for | 33.14  |
| 228                  | 1573.F18.gz43_208848 | 639849  | PH                  | for | 42.77  |
| 229                  | 1573.K19.gz43_208869 | 486238  | protkinase          | rev | 45.41  |
| 415                  | 1585.G22.gz43_210545 | 412416  | Dead_box_helic      | for | 49.67  |
| 445                  | 1587.B06.gz43_211440 | 446984  | ANK                 | rev | 23.12  |
| 486                  | 1597.G06.gz43_212233 | 639593  | defensins           | rev | 18.27  |
| 487                  | 1597.J06.gz43_212236 | 557975  | ANK                 | for | 35.63  |
| 502                  | 1597.F18.gz43_212424 | 596882  | zf-c2h2             | rev | 18.13  |
| 700                  | 1694.M19.gz43_214375 | 425923  | zf-c2h2             | for | 32.76  |
| 847                  | 1706.P07.gz43_216138 | 639901  | zf-c2h2             | for | 19.43  |
| 877                  | 1707.J02.gz43_216453 | 550237  | zf-ccch             | for | 26.74  |
| 1511                 | 1755.P24.gz43_223395 | 606129  | rvt                 | for | 37.6   |
| 1714                 | 1790.C14.gz43_226997 | 727150  | bzip                | for | 24.2   |
| 2034                 | 1828.J19.gz43_232472 | 728303  | zf-c2h2             | rev | 18.19  |
| 2038                 | 1828.P21.gz43_232510 | 509678  | Retvir_asp_protease | for | 28.5   |
| 2054                 | 1838.N05.gz43_233020 | 481614  | zf-c2h2             | for | 18.52  |
| 2514                 | 1888.O06.gz43_240269 | 451764  | rvt                 | for | 49.99  |
| 2973                 | 1924.H18.gz43_245579 | 499700  | 7tm_1               | rev | 73.7   |
| 3013                 | 1935.E18.gz43_246500 | 490805  | ANK                 | rev | 28.74  |
| 3140                 | 1981.O19.gz43_248062 | 558949  | zf-c3hc4            | rev | 19.16  |
| 3403                 | 1958.N12.gz43_250647 | 556308  | zf-c2h2             | for | 40.77  |
| 3524                 | 1923.M22.gz43_252963 | 562603  | zf-c2h2             | rev | 42.42  |
| 3653                 | 1995.C03.gz43_256117 | 562152  | zf-c2h2             | rev | 18.97  |
| 3689                 | 1995.P13.gz43_256290 | 562989  | EGF                 | rev | 19.4   |
| 3723                 | 1995.B24.gz43_256452 | 556632  | zf-c2h2             | rev | 20.64  |
| 3814                 | 2007.F09.gz43_257778 | 560652  | zf-c2hc             | rev | 21.49  |
| 3931                 | 2008.F18.gz43_258308 | 550497  | bzip                | for | 20.27  |
| 4151                 | 1669.G11.gz43_260853 | 503275  | protkinase          | rev | 43.25  |
| 4356                 | 1682.O17.gz43_262495 | 450211  | bzip                | rev | 26.06  |
| 4373                 | 1682.F21.gz43_262550 | 546740  | EFhand              | rev | 18.72  |
| 4688                 | 2018.K14.gz43_264760 | 432970  | zf-c2h2             | for | 48.43  |
| 4979                 | 2041.C09.gz43_266976 | 556632  | zf-c2h2             | rev | 20.88  |
| 5467                 | 2067.I20.gz43_271090 | 551617  | 7tm_1               | rev | 19.77  |
| 5508                 | 2068.F14.gz43_271375 | 561707  | 7tm_1               | rev | 24.27  |
| 5522                 | 2068.D17.gz43_271421 | 554774  | tgf-beta            | for | 18.24  |
| 5756                 | 2176.J17.gz43_281945 | 412416  | Dead_box_helic      | for | 37.64  |
| 6001                 | 1561.C22.gz43_314731 | 447072  | PH                  | for | 31.95  |



| Table 5   |         |         |          |          |            |             |
|-----------|---------|---------|----------|----------|------------|-------------|
| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
| 6         | 558147  | 12,13   | 3        | 12       | -1         | 3.87        |
| 11        | 402353  | 12,13   | 13       | 4        | 3.36       | -1          |
| 14        | 884     | 03,04   | 51       | 20       | 2.49       | -1          |
| 14        | 884     | 15,17   | 1        | 10       | -1         | 9.32        |
| 14        | 884     | 27,28   | 15       | 3        | 5.41       | -1          |
| 14        | 884     | 28,29   | 3        | 21       | -1         | 5.62        |
| 22        | 427571  | 08,09   | 6        | 0        | 8.38       | -1          |
| 28        | 6342    | 30,31   | 0        | 7        | -1         | 6.29        |
| 29        | 387530  | 30,31   | 2        | 24       | -1         | 10.79       |
| 52        | 24210   | 08,09   | 2        | 13       | -1         | 4.65        |
| 52        | 24210   | 21,22   | 0        | 11       | -1         | 11.18       |
| 52        | 24210   | 23,24   | 1        | 9        | -1         | 8.91        |
| 52        | 24210   | 25,26   | 12       | 2        | 5.79       | -1          |
| 60        | 1300    | 25,26   | 6        | 0        | 5.79       | -1          |
| 64        | 376808  | 08,09   | 0        | 8        | -1         | 5.72        |
| 65        | 6342    | 30,31   | 0        | 7        | -1         | 6.29        |
| 67        | 24210   | 08,09   | 2        | 13       | -1         | 4.65        |
| 67        | 24210   | 21,22   | 0        | 11       | -1         | 11.18       |
| 67        | 24210   | 23,24   | 1        | 9        | -1         | 8.91        |
| 67        | 24210   | 25,26   | 12       | 2        | 5.79       | -1          |
| 68        | 24210   | 08,09   | 2        | 13       | -1         | 4.65        |
| 68        | 24210   | 21,22   | 0        | 11       | -1         | 11.18       |
| 68        | 24210   | 23,24   | 1        | 9        | -1         | 8.91        |
| 68        | 24210   | 25,26   | 12       | 2        | 5.79       | -1          |
| 71        | 185432  | 03,04   | 0        | 26       | -1         | 26.65       |
| 71        | 185432  | 08,09   | 10       | 33       | -1         | 2.36        |
| 75        | 418763  | 15,16   | 15       | 3        | 5.28       | -1          |
| 75        | 418763  | 15,17   | 15       | 2        | 8.05       | -1          |
| 75        | 418763  | 27,29   | 11       | 0        | 14.84      | -1          |
| 75        | 418763  | 28,29   | 5        | 0        | 6.23       | -1          |
| 79        | 649035  | 27,28   | 0        | 7        | -1         | 6.46        |
| 79        | 649035  | 28,29   | 7        | 0        | 8.72       | -1          |
| 92        | 186594  | 25,26   | 12       | 0        | 11.58      | -1          |
| 93        | 218904  | 08,09   | 6        | 1        | 8.38       | -1          |
| 99        | 535955  | 15,17   | 1        | 10       | -1         | 9.32        |
| 99        | 535955  | 16,17   | 0        | 10       | -1         | 9.85        |
| 112       | 48238   | 08,09   | 6        | 1        | 8.38       | -1          |
| 113       | 226324  | 15,17   | 0        | 8        | -1         | 7.45        |
| 113       | 226324  | 16,17   | 0        | 8        | -1         | 7.88        |
| 113       | 226324  | 27,29   | 5        | 0        | 6.75       | -1          |
| 115       | 62016   | 16,17   | 0        | 6        | -1         | 5.91        |
| 116       | 48238   | 08,09   | 6        | 1        | 8.38       | -1          |
| 121       | 20453   | 25,26   | 3        | 13       | -1         | 4.49        |
| 123       | 37805   | 08,09   | 10       | 0        | 13.97      | -1          |
| 125       | 48238   | 08,09   | 6        | 1        | 8.38       | -1          |
| 136       | 120049  | 15,17   | 10       | 2        | 5.37       | -1          |

[illegible]

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 140       | 446829  | 27,29   | 78       | 44       | 2.39       | -1          |
| 147       | 147196  | 28,29   | 16       | 46       | -1         | 2.31        |
| 147       | 147196  | 30,31   | 8        | 30       | -1         | 3.37        |
| 153       | 446614  | 16,17   | 7        | 0        | 7.11       | -1          |
| 160       | 463487  | 15,17   | 8        | 1        | 8.59       | -1          |
| 170       | 417078  | 15,16   | 8        | 1        | 8.46       | -1          |
| 170       | 417078  | 15,17   | 8        | 0        | 8.59       | -1          |
| 176       | 446531  | 16,17   | 0        | 6        | -1         | 5.91        |
| 178       | 380127  | 28,29   | 9        | 26       | -1         | 2.32        |
| 199       | 468109  | 15,17   | 6        | 0        | 6.44       | -1          |
| 199       | 468109  | 27,29   | 6        | 0        | 8.09       | -1          |
| 199       | 468109  | 28,29   | 7        | 0        | 8.72       | -1          |
| 200       | 447326  | 15,17   | 6        | 0        | 6.44       | -1          |
| 219       | 650195  | 15,16   | 6        | 0        | 6.34       | -1          |
| 219       | 650195  | 15,17   | 6        | 0        | 6.44       | -1          |
| 238       | 470462  | 15,17   | 7        | 0        | 7.51       | -1          |
| 242       | 466697  | 12,13   | 6        | 0        | 6.2        | -1          |
| 248       | 447147  | 27,29   | 9        | 0        | 12.14      | -1          |
| 255       | 447750  | 12,14   | 9        | 0        | 9.43       | -1          |
| 255       | 447750  | 27,29   | 9        | 0        | 12.14      | -1          |
| 255       | 447750  | 28,29   | 5        | 0        | 6.23       | -1          |
| 261       | 560868  | 27,29   | 6        | 0        | 8.09       | -1          |
| 276       | 640356  | 15,17   | 10       | 0        | 10.73      | -1          |
| 287       | 649852  | 15,17   | 6        | 0        | 6.44       | -1          |
| 292       | 446974  | 28,29   | 5        | 0        | 6.23       | -1          |
| 307       | 643924  | 15,16   | 6        | 0        | 6.34       | -1          |
| 307       | 643924  | 15,17   | 6        | 0        | 6.44       | -1          |
| 309       | 452986  | 15,16   | 8        | 1        | 8.46       | -1          |
| 320       | 449861  | 16,17   | 74       | 26       | 2.89       | -1          |
| 320       | 449861  | 27,29   | 1        | 16       | -1         | 11.86       |
| 326       | 450225  | 15,17   | 11       | 3        | 3.94       | -1          |
| 326       | 450225  | 27,28   | 1        | 24       | -1         | 22.16       |
| 326       | 450225  | 28,29   | 24       | 1        | 29.9       | -1          |
| 327       | 452707  | 30,31   | 7        | 0        | 7.79       | -1          |
| 337       | 452204  | 15,16   | 9        | 1        | 9.51       | -1          |
| 337       | 452204  | 16,17   | 1        | 8        | -1         | 7.88        |
| 337       | 452204  | 23,24   | 3        | 13       | -1         | 4.29        |
| 337       | 452204  | 27,28   | 0        | 14       | -1         | 12.93       |
| 337       | 452204  | 28,29   | 14       | 0        | 17.44      | -1          |
| 343       | 639662  | 15,16   | 7        | 0        | 7.4        | -1          |
| 343       | 639662  | 15,17   | 7        | 0        | 7.51       | -1          |
| 351       | 448606  | 15,17   | 5        | 20       | -1         | 3.73        |
| 351       | 448606  | 27,28   | 0        | 7        | -1         | 6.46        |
| 374       | 475184  | 25,26   | 6        | 74       | -1         | 12.78       |
| 374       | 475184  | 27,28   | 114      | 48       | 2.57       | -1          |
| 374       | 475184  | 27,29   | 114      | 70       | 2.2        | -1          |
| 374       | 475184  | 30,31   | 5        | 19       | -1         | 3.42        |
| 403       | 555193  | 15,16   | 6        | 0        | 6.34       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 417       | 3       | 01,02   | 5284     | 2168     | 2.25       | -1          |
| 417       | 3       | 08,09   | 1095     | 631      | 2.43       | -1          |
| 417       | 3       | 18,20   | 2079     | 463      | 3.84       | -1          |
| 417       | 3       | 19,20   | 1419     | 463      | 2.29       | -1          |
| 417       | 3       | 27,29   | 993      | 3994     | -1         | 2.98        |
| 417       | 3       | 28,29   | 786      | 3994     | -1         | 4.08        |
| 419       | 237288  | 15,16   | 7        | 0        | 7.4        | -1          |
| 419       | 237288  | 15,17   | 7        | 0        | 7.51       | -1          |
| 432       | 639459  | 15,17   | 11       | 0        | 11.81      | -1          |
| 432       | 639459  | 16,17   | 9        | 0        | 9.14       | -1          |
| 467       | 639480  | 27,28   | 8        | 0        | 8.66       | -1          |
| 467       | 639480  | 27,29   | 8        | 0        | 10.79      | -1          |
| 468       | 644242  | 15,16   | 6        | 0        | 6.34       | -1          |
| 468       | 644242  | 15,17   | 6        | 0        | 6.44       | -1          |
| 475       | 640747  | 15,17   | 6        | 0        | 6.44       | -1          |
| 488       | 640356  | 15,17   | 10       | 0        | 10.73      | -1          |
| 490       | 31112   | 15,17   | 6        | 0        | 6.44       | -1          |
| 490       | 31112   | 23,24   | 107      | 9        | 12.01      | -1          |
| 500       | 23961   | 15,16   | 102      | 44       | 2.45       | -1          |
| 500       | 23961   | 15,17   | 102      | 40       | 2.74       | -1          |
| 500       | 23961   | 25,26   | 73       | 169      | -1         | 2.4         |
| 514       | 645538  | 23,24   | 0        | 6        | -1         | 5.94        |
| 517       | 556     | 25,26   | 29       | 57       | -1         | 2.04        |
| 517       | 556     | 27,28   | 34       | 14       | 2.63       | -1          |
| 517       | 556     | 28,29   | 14       | 43       | -1         | 2.47        |
| 517       | 556     | 30,31   | 29       | 105      | -1         | 3.26        |
| 554       | 446371  | 15,16   | 6        | 0        | 6.34       | -1          |
| 558       | 640221  | 15,17   | 8        | 0        | 8.59       | -1          |
| 566       | 5201    | 03,04   | 11       | 2        | 5.37       | -1          |
| 566       | 5201    | 15,16   | 17       | 4        | 4.49       | -1          |
| 566       | 5201    | 15,17   | 17       | 1        | 18.25      | -1          |
| 566       | 5201    | 23,24   | 8        | 1        | 8.08       | -1          |
| 566       | 5201    | 27,28   | 9        | 0        | 9.75       | -1          |
| 566       | 5201    | 27,29   | 9        | 0        | 12.14      | -1          |
| 570       | 639480  | 27,28   | 8        | 0        | 8.66       | -1          |
| 570       | 639480  | 27,29   | 8        | 0        | 10.79      | -1          |
| 577       | 649717  | 16,17   | 6        | 0        | 6.09       | -1          |
| 587       | 557401  | 15,17   | 10       | 2        | 5.37       | -1          |
| 609       | 650204  | 15,17   | 11       | 0        | 11.81      | -1          |
| 624       | 645073  | 15,16   | 6        | 0        | 6.34       | -1          |
| 624       | 645073  | 15,17   | 6        | 0        | 6.44       | -1          |
| 637       | 981     | 18,19   | 1        | 9        | -1         | 7.88        |
| 637       | 981     | 27,28   | 55       | 17       | 3.5        | -1          |
| 637       | 981     | 28,29   | 17       | 47       | -1         | 2.22        |
| 637       | 981     | 30,31   | 31       | 224      | -1         | 6.5         |
| 661       | 448450  | 27,28   | 0        | 7        | -1         | 6.46        |
| 661       | 448450  | 28,29   | 7        | 0        | 8.72       | -1          |
| 662       | 643804  | 15,16   | 6        | 0        | 6.34       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 662       | 643804  | 15,17   | 6        | 0        | 6.44       | -1          |
| 672       | 607430  | 15,16   | 6        | 0        | 6.34       | -1          |
| 678       | 466697  | 12,13   | 6        | 0        | 6.2        | -1          |
| 681       | 462659  | 15,16   | 7        | 0        | 7.4        | -1          |
| 681       | 462659  | 15,17   | 7        | 0        | 7.51       | -1          |
| 683       | 24730   | 21,22   | 0        | 12       | -1         | 12.2        |
| 716       | 638854  | 15,16   | 32       | 11       | 3.07       | -1          |
| 716       | 638854  | 15,17   | 32       | 0        | 34.35      | -1          |
| 716       | 638854  | 16,17   | 11       | 0        | 11.17      | -1          |
| 720       | 643594  | 15,16   | 7        | 0        | 7.4        | -1          |
| 720       | 643594  | 15,17   | 7        | 0        | 7.51       | -1          |
| 729       | 644442  | 27,28   | 0        | 7        | -1         | 6.46        |
| 729       | 644442  | 28,29   | 7        | 0        | 8.72       | -1          |
| 735       | 447035  | 16,17   | 8        | 1        | 8.12       | -1          |
| 743       | 380550  | 27,28   | 14       | 5        | 3.03       | -1          |
| 743       | 380550  | 27,29   | 14       | 0        | 18.89      | -1          |
| 743       | 380550  | 28,29   | 5        | 0        | 6.23       | -1          |
| 744       | 645538  | 23,24   | 0        | 6        | -1         | 5.94        |
| 746       | 650773  | 15,17   | 6        | 0        | 6.44       | -1          |
| 761       | 650517  | 15,16   | 6        | 0        | 6.34       | -1          |
| 761       | 650517  | 15,17   | 6        | 0        | 6.44       | -1          |
| 769       | 640356  | 15,17   | 10       | 0        | 10.73      | -1          |
| 773       | 450559  | 16,17   | 2        | 11       | -1         | 5.42        |
| 797       | 644242  | 15,16   | 6        | 0        | 6.34       | -1          |
| 797       | 644242  | 15,17   | 6        | 0        | 6.44       | -1          |
| 798       | 644407  | 30,31   | 6        | 0        | 6.67       | -1          |
| 814       | 649170  | 27,29   | 6        | 0        | 8.09       | -1          |
| 826       | 447326  | 15,17   | 6        | 0        | 6.44       | -1          |
| 832       | 400741  | 23,24   | 37       | 14       | 2.67       | -1          |
| 832       | 400741  | 30,31   | 19       | 2        | 10.57      | -1          |
| 855       | 647952  | 15,16   | 6        | 0        | 6.34       | -1          |
| 855       | 647952  | 15,17   | 6        | 0        | 6.44       | -1          |
| 855       | 647952  | 28,29   | 8        | 1        | 9.97       | -1          |
| 858       | 455413  | 23,24   | 4        | 17       | -1         | 4.21        |
| 866       | 645092  | 15,17   | 8        | 0        | 8.59       | -1          |
| 873       | 204     | 03,04   | 120      | 318      | -1         | 2.72        |
| 873       | 204     | 15,17   | 35       | 82       | -1         | 2.18        |
| 873       | 204     | 27,28   | 41       | 14       | 3.17       | -1          |
| 873       | 204     | 27,29   | 41       | 24       | 2.3        | -1          |
| 873       | 204     | 30,31   | 287      | 56       | 5.7        | -1          |
| 887       | 645900  | 15,17   | 9        | 0        | 9.66       | -1          |
| 887       | 645900  | 16,17   | 9        | 0        | 9.14       | -1          |
| 887       | 645900  | 23,24   | 7        | 0        | 7.07       | -1          |
| 905       | 557852  | 28,29   | 6        | 0        | 7.48       | -1          |
| 918       | 451709  | 27,28   | 2        | 31       | -1         | 14.31       |
| 918       | 451709  | 28,29   | 31       | 3        | 12.87      | -1          |
| 939       | 448358  | 27,28   | 28       | 15       | 2.02       | -1          |
| 945       | 639480  | 27,28   | 8        | 0        | 8.66       | -1          |

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| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 945       | 639480  | 27,29   | 8        | 0        | 10.79      | -1          |
| 946       | 1318    | 01,02   | 17       | 42       | -1         | 2.68        |
| 946       | 1318    | 03,04   | 42       | 88       | -1         | 2.15        |
| 957       | 451361  | 23,24   | 1        | 8        | -1         | 7.92        |
| 958       | 449891  | 15,16   | 8        | 1        | 8.46       | -1          |
| 986       | 418763  | 15,16   | 15       | 3        | 5.28       | -1          |
| 986       | 418763  | 15,17   | 15       | 2        | 8.05       | -1          |
| 986       | 418763  | 27,29   | 11       | 0        | 14.84      | -1          |
| 986       | 418763  | 28,29   | 5        | 0        | 6.23       | -1          |
| 987       | 619635  | 25,26   | 7        | 0        | 6.76       | -1          |
| 989       | 451899  | 15,17   | 9        | 1        | 9.66       | -1          |
| 989       | 451899  | 27,28   | 4        | 21       | -1         | 4.85        |
| 991       | 560860  | 27,28   | 0        | 7        | -1         | 6.46        |
| 991       | 560860  | 28,29   | 7        | 0        | 8.72       | -1          |
| 996       | 452775  | 27,28   | 1        | 9        | -1         | 8.31        |
| 1006      | 649556  | 28,29   | 6        | 0        | 7.48       | -1          |
| 1007      | 644611  | 15,16   | 7        | 0        | 7.4        | -1          |
| 1007      | 644611  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1009      | 470462  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1010      | 645662  | 23,24   | 4        | 28       | -1         | 6.93        |
| 1011      | 649259  | 15,16   | 7        | 0        | 7.4        | -1          |
| 1011      | 649259  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1011      | 649259  | 27,28   | 8        | 0        | 8.66       | -1          |
| 1011      | 649259  | 27,29   | 8        | 0        | 10.79      | -1          |
| 1034      | 532307  | 16,17   | 0        | 7        | -1         | 6.89        |
| 1044      | 414739  | 15,17   | 6        | 19       | -1         | 2.95        |
| 1044      | 414739  | 16,17   | 2        | 19       | -1         | 9.35        |
| 1047      | 238586  | 30,31   | 9        | 0        | 10.01      | -1          |
| 1068      | 467057  | 23,24   | 0        | 7        | -1         | 6.93        |
| 1090      | 549786  | 23,24   | 0        | 8        | -1         | 7.92        |
| 1101      | 649259  | 15,16   | 7        | 0        | 7.4        | -1          |
| 1101      | 649259  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1101      | 649259  | 27,28   | 8        | 0        | 8.66       | -1          |
| 1101      | 649259  | 27,29   | 8        | 0        | 10.79      | -1          |
| 1106      | 468689  | 15,16   | 6        | 0        | 6.34       | -1          |
| 1106      | 468689  | 15,17   | 6        | 0        | 6.44       | -1          |
| 1112      | 556325  | 16,17   | 1        | 8        | -1         | 7.88        |
| 1123      | 645530  | 15,16   | 10       | 2        | 5.28       | -1          |
| 1123      | 645530  | 15,17   | 10       | 0        | 10.73      | -1          |
| 1132      | 452026  | 15,16   | 38       | 14       | 2.87       | -1          |
| 1132      | 452026  | 27,28   | 7        | 26       | -1         | 3.43        |
| 1132      | 452026  | 28,29   | 26       | 2        | 16.2       | -1          |
| 1132      | 452026  | 30,31   | 9        | 2        | 5.01       | -1          |
| 1134      | 612572  | 15,16   | 6        | 0        | 6.34       | -1          |
| 1147      | 14157   | 28,29   | 6        | 0        | 7.48       | -1          |
| 1151      | 454906  | 27,28   | 4        | 18       | -1         | 4.16        |
| 1151      | 454906  | 28,29   | 18       | 2        | 11.21      | -1          |
| 1154      | 62053   | 25,26   | 10       | 1        | 9.65       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 1180      | 645900  | 15,17   | 9        | 0        | 9.66       | -1          |
| 1180      | 645900  | 16,17   | 9        | 0        | 9.14       | -1          |
| 1180      | 645900  | 23,24   | 7        | 0        | 7.07       | -1          |
| 1185      | 463824  | 15,16   | 6        | 0        | 6.34       | -1          |
| 1185      | 463824  | 15,17   | 6        | 0        | 6.44       | -1          |
| 1185      | 463824  | 27,28   | 0        | 8        | -1         | 7.39        |
| 1185      | 463824  | 28,29   | 8        | 0        | 9.97       | -1          |
| 1193      | 649617  | 28,29   | 5        | 0        | 6.23       | -1          |
| 1208      | 452738  | 28,29   | 5        | 0        | 6.23       | -1          |
| 1234      | 647232  | 16,17   | 9        | 0        | 9.14       | -1          |
| 1234      | 647232  | 28,29   | 6        | 0        | 7.48       | -1          |
| 1237      | 503122  | 25,26   | 8        | 178      | -1         | 23.05       |
| 1237      | 503122  | 27,29   | 12       | 2        | 8.09       | -1          |
| 1237      | 503122  | 30,31   | 22       | 98       | -1         | 4           |
| 1238      | 515350  | 15,16   | 14       | 0        | 14.8       | -1          |
| 1238      | 515350  | 15,17   | 14       | 3        | 5.01       | -1          |
| 1244      | 648996  | 15,16   | 6        | 0        | 6.34       | -1          |
| 1244      | 648996  | 15,17   | 6        | 0        | 6.44       | -1          |
| 1255      | 416624  | 27,29   | 6        | 0        | 8.09       | -1          |
| 1261      | 449956  | 12,13   | 6        | 0        | 6.2        | -1          |
| 1261      | 449956  | 16,17   | 10       | 1        | 10.16      | -1          |
| 1261      | 449956  | 28,29   | 10       | 0        | 12.46      | -1          |
| 1261      | 449956  | 30,31   | 8        | 1        | 8.9        | -1          |
| 1270      | 380477  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1276      | 645100  | 15,16   | 7        | 0        | 7.4        | -1          |
| 1276      | 645100  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1278      | 554581  | 28,29   | 7        | 0        | 8.72       | -1          |
| 1290      | 650820  | 16,17   | 8        | 0        | 8.12       | -1          |
| 1306      | 646309  | 16,17   | 6        | 0        | 6.09       | -1          |
| 1315      | 502683  | 15,16   | 6        | 0        | 6.34       | -1          |
| 1315      | 502683  | 28,29   | 5        | 0        | 6.23       | -1          |
| 1342      | 463487  | 15,17   | 8        | 1        | 8.59       | -1          |
| 1352      | 446987  | 15,17   | 10       | 0        | 10.73      | -1          |
| 1354      | 640922  | 27,28   | 0        | 7        | -1         | 6.46        |
| 1354      | 640922  | 28,29   | 7        | 0        | 8.72       | -1          |
| 1355      | 561793  | 30,31   | 6        | 0        | 6.67       | -1          |
| 1382      | 649354  | 15,16   | 6        | 0        | 6.34       | -1          |
| 1382      | 649354  | 15,17   | 6        | 0        | 6.44       | -1          |
| 1386      | 507050  | 27,29   | 9        | 0        | 12.14      | -1          |
| 1386      | 507050  | 28,29   | 7        | 0        | 8.72       | -1          |
| 1392      | 649272  | 16,17   | 8        | 0        | 8.12       | -1          |
| 1412      | 453470  | 15,16   | 12       | 1        | 12.68      | -1          |
| 1412      | 453470  | 15,17   | 12       | 1        | 12.88      | -1          |
| 1423      | 419255  | 15,16   | 11       | 0        | 11.63      | -1          |
| 1423      | 419255  | 15,17   | 11       | 1        | 11.81      | -1          |
| 1424      | 648996  | 15,16   | 6        | 0        | 6.34       | -1          |
| 1424      | 648996  | 15,17   | 6        | 0        | 6.44       | -1          |
| 1425      | 451361  | 23,24   | 1        | 8        | -1         | 7.92        |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 1426      | 15296   | 27,28   | 6        | 0        | 6.5        | -1          |
| 1429      | 643327  | 28,29   | 10       | 0        | 12.46      | -1          |
| 1432      | 452646  | 28,29   | 5        | 0        | 6.23       | -1          |
| 1442      | 651073  | 15,16   | 7        | 0        | 7.4        | -1          |
| 1442      | 651073  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1442      | 651073  | 27,28   | 0        | 9        | -1         | 8.31        |
| 1442      | 651073  | 28,29   | 9        | 2        | 5.61       | -1          |
| 1452      | 213     | 03,04   | 17       | 4        | 4.15       | -1          |
| 1452      | 213     | 08,09   | 137      | 403      | -1         | 2.1         |
| 1452      | 213     | 21,22   | 2        | 14       | -1         | 7.12        |
| 1452      | 213     | 27,28   | 4        | 43       | -1         | 9.93        |
| 1452      | 213     | 27,29   | 4        | 47       | -1         | 8.71        |
| 1452      | 213     | 30,31   | 123      | 35       | 3.91       | -1          |
| 1468      | 268336  | 15,16   | 8        | 1        | 8.46       | -1          |
| 1478      | 646060  | 15,16   | 13       | 3        | 4.58       | -1          |
| 1478      | 646060  | 15,17   | 13       | 0        | 13.95      | -1          |
| 1497      | 639378  | 27,28   | 8        | 0        | 8.66       | -1          |
| 1497      | 639378  | 27,29   | 8        | 0        | 10.79      | -1          |
| 1507      | 446910  | 25,26   | 80       | 346      | -1         | 4.48        |
| 1507      | 446910  | 27,29   | 210      | 38       | 7.46       | -1          |
| 1507      | 446910  | 28,29   | 210      | 38       | 6.88       | -1          |
| 1508      | 447126  | 15,16   | 19       | 5        | 4.02       | -1          |
| 1508      | 447126  | 16,17   | 5        | 20       | -1         | 3.94        |
| 1508      | 447126  | 28,29   | 5        | 0        | 6.23       | -1          |
| 1514      | 479131  | 23,24   | 1        | 13       | -1         | 12.87       |
| 1523      | 284586  | 15,17   | 8        | 0        | 8.59       | -1          |
| 1523      | 284586  | 27,28   | 0        | 17       | -1         | 15.7        |
| 1523      | 284586  | 28,29   | 17       | 0        | 21.18      | -1          |
| 1529      | 449437  | 15,16   | 14       | 3        | 4.93       | -1          |
| 1529      | 449437  | 16,17   | 3        | 12       | -1         | 3.94        |
| 1529      | 449437  | 27,28   | 0        | 8        | -1         | 7.39        |
| 1529      | 449437  | 28,29   | 8        | 0        | 9.97       | -1          |
| 1552      | 449438  | 27,29   | 5        | 0        | 6.75       | -1          |
| 1552      | 449438  | 28,29   | 9        | 0        | 11.21      | -1          |
| 1561      | 448152  | 27,28   | 1        | 17       | -1         | 15.7        |
| 1561      | 448152  | 28,29   | 17       | 2        | 10.59      | -1          |
| 1564      | 479880  | 23,24   | 0        | 7        | -1         | 6.93        |
| 1594      | 449521  | 27,29   | 7        | 1        | 9.44       | -1          |
| 1602      | 644190  | 16,17   | 6        | 0        | 6.09       | -1          |
| 1620      | 639991  | 15,17   | 6        | 0        | 6.44       | -1          |
| 1638      | 594994  | 28,29   | 6        | 0        | 7.48       | -1          |
| 1660      | 376342  | 15,16   | 0        | 7        | -1         | 6.62        |
| 1662      | 734646  | 15,16   | 0        | 14       | -1         | 13.25       |
| 1662      | 734646  | 16,17   | 14       | 0        | 14.22      | -1          |
| 1666      | 460284  | 23,24   | 6        | 0        | 6.06       | -1          |
| 1666      | 460284  | 27,28   | 6        | 0        | 6.5        | -1          |
| 1685      | 558412  | 30,31   | 6        | 0        | 6.67       | -1          |
| 1689      | 640158  | 16,17   | 6        | 0        | 6.09       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 1706      | 209     | 01,02   | 9        | 36       | -1         | 4.34        |
| 1706      | 209     | 03,04   | 445      | 205      | 2.12       | -1          |
| 1706      | 209     | 15,16   | 36       | 188      | -1         | 4.94        |
| 1706      | 209     | 15,17   | 36       | 145      | -1         | 3.75        |
| 1706      | 209     | 18,19   | 0        | 12       | -1         | 10.5        |
| 1706      | 209     | 19,20   | 12       | 1        | 8.98       | -1          |
| 1706      | 209     | 21,22   | 19       | 101      | -1         | 5.4         |
| 1706      | 209     | 27,28   | 250      | 36       | 7.52       | -1          |
| 1706      | 209     | 27,29   | 250      | 69       | 4.89       | -1          |
| 1713      | 423420  | 30,31   | 12       | 0        | 13.35      | -1          |
| 1717      | 448758  | 23,24   | 12       | 27       | -1         | 2.23        |
| 1736      | 470462  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1740      | 729779  | 15,16   | 0        | 8        | -1         | 7.57        |
| 1740      | 729779  | 16,17   | 8        | 0        | 8.12       | -1          |
| 1758      | 649722  | 15,17   | 8        | 0        | 8.59       | -1          |
| 1758      | 649722  | 16,17   | 6        | 0        | 6.09       | -1          |
| 1759      | 562137  | 23,24   | 8        | 0        | 8.08       | -1          |
| 1769      | 27083   | 16,17   | 11       | 0        | 11.17      | -1          |
| 1769      | 27083   | 25,26   | 17       | 56       | -1         | 3.41        |
| 1769      | 27083   | 28,29   | 1        | 14       | -1         | 11.24       |
| 1769      | 27083   | 30,31   | 31       | 99       | -1         | 2.87        |
| 1784      | 498194  | 27,28   | 0        | 7        | -1         | 6.46        |
| 1784      | 498194  | 28,29   | 7        | 0        | 8.72       | -1          |
| 1813      | 734646  | 15,16   | 0        | 14       | -1         | 13.25       |
| 1813      | 734646  | 16,17   | 14       | 0        | 14.22      | -1          |
| 1816      | 730282  | 15,16   | 0        | 7        | -1         | 6.62        |
| 1816      | 730282  | 16,17   | 7        | 0        | 7.11       | -1          |
| 1834      | 640116  | 15,16   | 19       | 4        | 5.02       | -1          |
| 1834      | 640116  | 15,17   | 19       | 0        | 20.39      | -1          |
| 1842      | 465446  | 25,26   | 26       | 11       | 2.28       | -1          |
| 1879      | 27083   | 16,17   | 11       | 0        | 11.17      | -1          |
| 1879      | 27083   | 25,26   | 17       | 56       | -1         | 3.41        |
| 1879      | 27083   | 28,29   | 1        | 14       | -1         | 11.24       |
| 1879      | 27083   | 30,31   | 31       | 99       | -1         | 2.87        |
| 1880      | 478458  | 27,29   | 5        | 0        | 6.75       | -1          |
| 1892      | 734622  | 23,24   | 5        | 17       | -1         | 3.37        |
| 1896      | 381623  | 15,16   | 10       | 2        | 5.28       | -1          |
| 1896      | 381623  | 15,17   | 10       | 0        | 10.73      | -1          |
| 1898      | 446575  | 27,28   | 1        | 10       | -1         | 9.23        |
| 1898      | 446575  | 28,29   | 10       | 1        | 12.46      | -1          |
| 1940      | 649106  | 15,17   | 7        | 0        | 7.51       | -1          |
| 1971      | 727760  | 27,28   | 0        | 8        | -1         | 7.39        |
| 1971      | 727760  | 28,29   | 8        | 0        | 9.97       | -1          |
| 1972      | 454087  | 15,16   | 14       | 3        | 4.93       | -1          |
| 1972      | 454087  | 15,17   | 14       | 1        | 15.03      | -1          |
| 1972      | 454087  | 25,26   | 4        | 14       | -1         | 3.63        |
| 1978      | 4584    | 01,02   | 1        | 11       | -1         | 11.93       |
| 1978      | 4584    | 25,26   | 6        | 0        | 5.79       | -1          |



| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 2009      | 734622  | 23,24   | 5        | 17       | -1         | 3.37        |
| 2027      | 48619   | 30,31   | 6        | 0        | 6.67       | -1          |
| 2033      | 646309  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2040      | 447150  | 23,24   | 0        | 6        | -1         | 5.94        |
| 2041      | 728273  | 15,16   | 0        | 7        | -1         | 6.62        |
| 2041      | 728273  | 16,17   | 7        | 0        | 7.11       | -1          |
| 2048      | 438663  | 15,16   | 4        | 16       | -1         | 3.78        |
| 2048      | 438663  | 25,26   | 97       | 210      | -1         | 2.24        |
| 2048      | 438663  | 27,28   | 48       | 171      | -1         | 3.29        |
| 2048      | 438663  | 28,29   | 171      | 58       | 3.67       | -1          |
| 2048      | 438663  | 30,31   | 13       | 30       | -1         | 2.07        |
| 2064      | 128773  | 15,16   | 4        | 25       | -1         | 5.91        |
| 2064      | 128773  | 16,17   | 25       | 2        | 12.69      | -1          |
| 2064      | 128773  | 25,26   | 79       | 261      | -1         | 3.42        |
| 2064      | 128773  | 30,31   | 13       | 33       | -1         | 2.28        |
| 2074      | 504513  | 15,17   | 6        | 0        | 6.44       | -1          |
| 2082      | 549801  | 28,29   | 8        | 0        | 9.97       | -1          |
| 2083      | 730484  | 23,24   | 1        | 12       | -1         | 11.88       |
| 2100      | 606076  | 23,24   | 2        | 22       | -1         | 10.89       |
| 2122      | 732712  | 15,16   | 0        | 7        | -1         | 6.62        |
| 2122      | 732712  | 16,17   | 7        | 0        | 7.11       | -1          |
| 2132      | 730059  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2132      | 730059  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2137      | 451184  | 16,17   | 14       | 4        | 3.55       | -1          |
| 2140      | 152     | 03,04   | 153      | 566      | -1         | 3.79        |
| 2140      | 152     | 08,09   | 136      | 395      | -1         | 2.08        |
| 2140      | 152     | 15,16   | 59       | 194      | -1         | 3.11        |
| 2140      | 152     | 15,17   | 59       | 455      | -1         | 7.18        |
| 2140      | 152     | 16,17   | 194      | 455      | -1         | 2.31        |
| 2140      | 152     | 21,22   | 232      | 565      | -1         | 2.48        |
| 2140      | 152     | 30,31   | 75       | 211      | -1         | 2.53        |
| 2150      | 648774  | 15,17   | 6        | 0        | 6.44       | -1          |
| 2157      | 548275  | 25,26   | 16       | 3        | 5.15       | -1          |
| 2159      | 479572  | 25,26   | 20       | 53       | -1         | 2.75        |
| 2159      | 479572  | 28,29   | 96       | 55       | 2.17       | -1          |
| 2200      | 448046  | 15,17   | 0        | 12       | -1         | 11.18       |
| 2200      | 448046  | 16,17   | 3        | 12       | -1         | 3.94        |
| 2200      | 448046  | 27,28   | 1        | 9        | -1         | 8.31        |
| 2200      | 448046  | 28,29   | 9        | 0        | 11.21      | -1          |
| 2204      | 732756  | 28,29   | 6        | 0        | 7.48       | -1          |
| 2215      | 171511  | 15,16   | 0        | 7        | -1         | 6.62        |
| 2215      | 171511  | 16,17   | 7        | 0        | 7.11       | -1          |
| 2232      | 203793  | 16,17   | 12       | 3        | 4.06       | -1          |
| 2232      | 203793  | 25,26   | 12       | 188      | -1         | 16.23       |
| 2232      | 203793  | 27,28   | 185      | 66       | 3.04       | -1          |
| 2232      | 203793  | 27,29   | 185      | 100      | 2.5        | -1          |
| 2236      | 725825  | 15,16   | 0        | 8        | -1         | 7.57        |
| 2236      | 725825  | 16,17   | 8        | 0        | 8.12       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 2276      | 407723  | 12,13   | 6        | 0        | 6.2        | -1          |
| 2285      | 411128  | 12,13   | 24       | 8        | 3.1        | -1          |
| 2285      | 411128  | 13,14   | 8        | 29       | -1         | 3.57        |
| 2285      | 411128  | 18,19   | 387      | 158      | 2.8        | -1          |
| 2285      | 411128  | 19,20   | 158      | 634      | -1         | 5.36        |
| 2285      | 411128  | 25,26   | 6272     | 2943     | 2.06       | -1          |
| 2285      | 411128  | 27,29   | 4900     | 2229     | 2.97       | -1          |
| 2285      | 411128  | 28,29   | 4750     | 2229     | 2.65       | -1          |
| 2289      | 726173  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2289      | 726173  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2322      | 732712  | 15,16   | 0        | 7        | -1         | 6.62        |
| 2322      | 732712  | 16,17   | 7        | 0        | 7.11       | -1          |
| 2337      | 4255    | 08,09   | 28       | 7        | 5.59       | -1          |
| 2338      | 554080  | 16,17   | 1        | 9        | -1         | 8.86        |
| 2358      | 4244    | 28,29   | 8        | 28       | -1         | 2.81        |
| 2376      | 737087  | 28,29   | 5        | 0        | 6.23       | -1          |
| 2378      | 735871  | 23,24   | 0        | 13       | -1         | 12.87       |
| 2388      | 735292  | 15,16   | 0        | 9        | -1         | 8.51        |
| 2388      | 735292  | 16,17   | 9        | 0        | 9.14       | -1          |
| 2400      | 732223  | 27,29   | 5        | 0        | 6.75       | -1          |
| 2401      | 595506  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2405      | 728884  | 15,16   | 0        | 8        | -1         | 7.57        |
| 2405      | 728884  | 16,17   | 8        | 0        | 8.12       | -1          |
| 2417      | 453508  | 25,26   | 27       | 9        | 2.9        | -1          |
| 2417      | 453508  | 27,28   | 9        | 1        | 9.75       | -1          |
| 2442      | 620462  | 23,24   | 2        | 19       | -1         | 9.4         |
| 2445      | 735028  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2445      | 735028  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2449      | 447075  | 27,28   | 3        | 37       | -1         | 11.39       |
| 2449      | 447075  | 28,29   | 37       | 14       | 3.29       | -1          |
| 2483      | 645139  | 16,17   | 9        | 0        | 9.14       | -1          |
| 2493      | 401368  | 27,29   | 48       | 32       | 2.02       | -1          |
| 2514      | 451764  | 16,17   | 16       | 5        | 3.25       | -1          |
| 2519      | 105056  | 15,16   | 1        | 10       | -1         | 9.46        |
| 2529      | 560868  | 27,29   | 6        | 0        | 8.09       | -1          |
| 2532      | 1030    | 21,22   | 13       | 3        | 4.26       | -1          |
| 2532      | 1030    | 27,29   | 21       | 12       | 2.36       | -1          |
| 2532      | 1030    | 30,31   | 14       | 5        | 3.11       | -1          |
| 2545      | 455581  | 27,28   | 118      | 49       | 2.61       | -1          |
| 2545      | 455581  | 27,29   | 118      | 29       | 5.49       | -1          |
| 2545      | 455581  | 28,29   | 49       | 29       | 2.11       | -1          |
| 2573      | 447550  | 23,24   | 6        | 0        | 6.06       | -1          |
| 2573      | 447550  | 25,26   | 48       | 197      | -1         | 4.25        |
| 2573      | 447550  | 30,31   | 6        | 20       | -1         | 3           |
| 2591      | 447003  | 28,29   | 6        | 0        | 7.48       | -1          |
| 2597      | 649852  | 15,17   | 6        | 0        | 6.44       | -1          |
| 2598      | 650297  | 15,17   | 6        | 0        | 6.44       | -1          |
| 2609      | 402516  | 30,31   | 6        | 0        | 6.67       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 2629      | 405016  | 16,17   | 15       | 4        | 3.81       | -1          |
| 2655      | 734031  | 27,28   | 0        | 7        | -1         | 6.46        |
| 2655      | 734031  | 28,29   | 7        | 0        | 8.72       | -1          |
| 2663      | 736595  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2663      | 736595  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2669      | 734209  | 15,16   | 0        | 9        | -1         | 8.51        |
| 2669      | 734209  | 16,17   | 9        | 0        | 9.14       | -1          |
| 2673      | 561632  | 27,29   | 5        | 0        | 6.75       | -1          |
| 2681      | 530883  | 15,16   | 0        | 7        | -1         | 6.62        |
| 2682      | 729173  | 15,16   | 0        | 8        | -1         | 7.57        |
| 2682      | 729173  | 16,17   | 8        | 0        | 8.12       | -1          |
| 2685      | 726786  | 12,13   | 6        | 0        | 6.2        | -1          |
| 2685      | 726786  | 15,16   | 0        | 10       | -1         | 9.46        |
| 2685      | 726786  | 16,17   | 10       | 0        | 10.16      | -1          |
| 2685      | 726786  | 30,31   | 6        | 0        | 6.67       | -1          |
| 2687      | 448770  | 15,17   | 6        | 0        | 6.44       | -1          |
| 2712      | 726449  | 27,28   | 16       | 1        | 17.33      | -1          |
| 2712      | 726449  | 27,29   | 16       | 0        | 21.59      | -1          |
| 2718      | 446752  | 12,14   | 1        | 12       | -1         | 11.45       |
| 2750      | 289328  | 12,13   | 6        | 0        | 6.2        | -1          |
| 2750      | 289328  | 30,31   | 8        | 1        | 8.9        | -1          |
| 2772      | 81      | 15,16   | 30       | 79       | -1         | 2.49        |
| 2772      | 81      | 15,17   | 30       | 114      | -1         | 3.54        |
| 2772      | 81      | 18,19   | 0        | 46       | -1         | 40.25       |
| 2772      | 81      | 19,20   | 46       | 4        | 8.6        | -1          |
| 2772      | 81      | 27,29   | 49       | 175      | -1         | 2.65        |
| 2772      | 81      | 30,31   | 52       | 116      | -1         | 2.01        |
| 2775      | 220107  | 15,17   | 9        | 25       | -1         | 2.59        |
| 2775      | 220107  | 28,29   | 9        | 39       | -1         | 3.48        |
| 2780      | 402024  | 12,13   | 2        | 12       | -1         | 5.81        |
| 2780      | 402024  | 12,14   | 2        | 11       | -1         | 5.25        |
| 2782      | 451888  | 27,29   | 79       | 26       | 4.1        | -1          |
| 2782      | 451888  | 28,29   | 70       | 26       | 3.35       | -1          |
| 2791      | 731467  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2791      | 731467  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2801      | 724781  | 28,29   | 10       | 2        | 6.23       | -1          |
| 2807      | 553850  | 28,29   | 5        | 0        | 6.23       | -1          |
| 2849      | 555103  | 15,17   | 0        | 7        | -1         | 6.52        |
| 2849      | 555103  | 23,24   | 0        | 6        | -1         | 5.94        |
| 2861      | 735477  | 15,16   | 0        | 7        | -1         | 6.62        |
| 2861      | 735477  | 16,17   | 7        | 0        | 7.11       | -1          |
| 2878      | 736014  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2878      | 736014  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2879      | 42      | 08,09   | 190      | 121      | 2.19       | -1          |
| 2879      | 42      | 27,28   | 792      | 286      | 3          | -1          |
| 2879      | 42      | 28,29   | 286      | 1257     | -1         | 3.53        |
| 2882      | 42      | 08,09   | 190      | 121      | 2.19       | -1          |
| 2882      | 42      | 27,28   | 792      | 286      | 3          | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 2882      | 42      | 28,29   | 286      | 1257     | -1         | 3.53        |
| 2883      | 736014  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2883      | 736014  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2885      | 4470    | 03,04   | 8        | 0        | 7.81       | -1          |
| 2885      | 4470    | 15,16   | 10       | 24       | -1         | 2.27        |
| 2885      | 4470    | 15,17   | 10       | 0        | 10.73      | -1          |
| 2885      | 4470    | 16,17   | 24       | 0        | 24.37      | -1          |
| 2885      | 4470    | 25,26   | 7        | 0        | 6.76       | -1          |
| 2897      | 554703  | 15,17   | 0        | 9        | -1         | 8.38        |
| 2897      | 554703  | 16,17   | 1        | 9        | -1         | 8.86        |
| 2898      | 546642  | 15,17   | 10       | 1        | 10.73      | -1          |
| 2898      | 546642  | 16,17   | 22       | 1        | 22.34      | -1          |
| 2910      | 732300  | 15,16   | 0        | 7        | -1         | 6.62        |
| 2910      | 732300  | 16,17   | 7        | 0        | 7.11       | -1          |
| 2938      | 892     | 15,16   | 0        | 6        | -1         | 5.68        |
| 2938      | 892     | 27,28   | 6        | 0        | 6.5        | -1          |
| 2938      | 892     | 27,29   | 6        | 0        | 8.09       | -1          |
| 2941      | 546642  | 15,17   | 10       | 1        | 10.73      | -1          |
| 2941      | 546642  | 16,17   | 22       | 1        | 22.34      | -1          |
| 2949      | 734582  | 15,16   | 0        | 6        | -1         | 5.68        |
| 2949      | 734582  | 16,17   | 6        | 0        | 6.09       | -1          |
| 2983      | 448110  | 15,17   | 2        | 25       | -1         | 11.65       |
| 2983      | 448110  | 16,17   | 1        | 25       | -1         | 24.62       |
| 2994      | 450027  | 23,24   | 0        | 6        | -1         | 5.94        |
| 2999      | 1015    | 08,09   | 10       | 31       | -1         | 2.22        |
| 2999      | 1015    | 12,14   | 62       | 28       | 2.32       | -1          |
| 2999      | 1015    | 13,14   | 84       | 28       | 3.05       | -1          |
| 2999      | 1015    | 30,31   | 31       | 6        | 5.75       | -1          |
| 3006      | 402070  | 27,28   | 1        | 9        | -1         | 8.31        |
| 3006      | 402070  | 28,29   | 9        | 0        | 11.21      | -1          |
| 3015      | 446964  | 15,17   | 1        | 12       | -1         | 11.18       |
| 3020      | 414739  | 15,17   | 6        | 19       | -1         | 2.95        |
| 3020      | 414739  | 16,17   | 2        | 19       | -1         | 9.35        |
| 3038      | 450410  | 16,17   | 0        | 7        | -1         | 6.89        |
| 3044      | 553316  | 15,16   | 12       | 3        | 4.23       | -1          |
| 3057      | 14573   | 30,31   | 11       | 3        | 4.08       | -1          |
| 3093      | 503452  | 16,17   | 1        | 8        | -1         | 7.88        |
| 3099      | 553158  | 16,17   | 1        | 8        | -1         | 7.88        |
| 3113      | 551289  | 23,24   | 0        | 7        | -1         | 6.93        |
| 3121      | 554581  | 28,29   | 7        | 0        | 8.72       | -1          |
| 3126      | 447667  | 16,17   | 0        | 11       | -1         | 10.83       |
| 3126      | 447667  | 27,28   | 22       | 10       | 2.38       | -1          |
| 3126      | 447667  | 27,29   | 22       | 3        | 9.89       | -1          |
| 3126      | 447667  | 28,29   | 10       | 3        | 4.15       | -1          |
| 3129      | 551617  | 15,16   | 9        | 0        | 9.51       | -1          |
| 3129      | 551617  | 16,17   | 0        | 7        | -1         | 6.89        |
| 3145      | 551117  | 16,17   | 0        | 6        | -1         | 5.91        |
| 3150      | 1093    | 27,28   | 43       | 20       | 2.33       | -1          |



| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 3512      | 498194  | 27,28   | 0        | 7        | -1         | 6.46        |
| 3512      | 498194  | 28,29   | 7        | 0        | 8.72       | -1          |
| 3518      | 453667  | 23,24   | 3        | 12       | -1         | 3.96        |
| 3538      | 275     | 15,17   | 3        | 15       | -1         | 4.66        |
| 3538      | 275     | 18,19   | 0        | 12       | -1         | 10.5        |
| 3559      | 447429  | 27,28   | 0        | 8        | -1         | 7.39        |
| 3559      | 447429  | 28,29   | 8        | 0        | 9.97       | -1          |
| 3563      | 449956  | 12,13   | 6        | 0        | 6.2        | -1          |
| 3563      | 449956  | 16,17   | 10       | 1        | 10.16      | -1          |
| 3563      | 449956  | 28,29   | 10       | 0        | 12.46      | -1          |
| 3563      | 449956  | 30,31   | 8        | 1        | 8.9        | -1          |
| 3573      | 134392  | 23,24   | 20       | 2        | 10.1       | -1          |
| 3573      | 134392  | 25,26   | 0        | 6        | -1         | 6.22        |
| 3583      | 551380  | 16,17   | 4        | 14       | -1         | 3.45        |
| 3600      | 450242  | 30,31   | 7        | 0        | 7.79       | -1          |
| 3603      | 451361  | 23,24   | 1        | 8        | -1         | 7.92        |
| 3608      | 402916  | 23,24   | 8        | 0        | 8.08       | -1          |
| 3608      | 402916  | 27,28   | 22       | 5        | 4.76       | -1          |
| 3608      | 402916  | 27,29   | 22       | 4        | 7.42       | -1          |
| 3613      | 555502  | 16,17   | 0        | 9        | -1         | 8.86        |
| 3619      | 461     | 15,16   | 14       | 39       | -1         | 2.64        |
| 3619      | 461     | 15,17   | 14       | 34       | -1         | 2.26        |
| 3619      | 461     | 18,19   | 1        | 10       | -1         | 8.75        |
| 3619      | 461     | 19,20   | 10       | 0        | 7.48       | -1          |
| 3619      | 461     | 27,29   | 41       | 124      | -1         | 2.24        |
| 3619      | 461     | 28,29   | 37       | 124      | -1         | 2.69        |
| 3619      | 461     | 30,31   | 21       | 119      | -1         | 5.09        |
| 3625      | 450867  | 15,16   | 7        | 0        | 7.4        | -1          |
| 3627      | 502683  | 15,16   | 6        | 0        | 6.34       | -1          |
| 3627      | 502683  | 28,29   | 5        | 0        | 6.23       | -1          |
| 3637      | 447405  | 15,17   | 27       | 83       | -1         | 2.86        |
| 3637      | 447405  | 18,20   | 2        | 11       | -1         | 6.43        |
| 3637      | 447405  | 19,20   | 0        | 11       | -1         | 14.71       |
| 3637      | 447405  | 27,29   | 163      | 60       | 3.66       | -1          |
| 3637      | 447405  | 30,31   | 14       | 36       | -1         | 2.31        |
| 3641      | 560984  | 16,17   | 0        | 6        | -1         | 5.91        |
| 3650      | 554604  | 15,17   | 0        | 7        | -1         | 6.52        |
| 3662      | 447858  | 15,16   | 12       | 3        | 4.23       | -1          |
| 3721      | 555830  | 15,16   | 16       | 2        | 8.46       | -1          |
| 3721      | 555830  | 15,17   | 16       | 2        | 8.59       | -1          |
| 3731      | 562550  | 16,17   | 0        | 6        | -1         | 5.91        |
| 3736      | 873     | 15,17   | 6        | 21       | -1         | 3.26        |
| 3736      | 873     | 27,29   | 15       | 50       | -1         | 2.47        |
| 3736      | 873     | 28,29   | 17       | 50       | -1         | 2.36        |
| 3736      | 873     | 30,31   | 14       | 32       | -1         | 2.05        |
| 3744      | 126     | 15,16   | 103      | 260      | -1         | 2.39        |
| 3744      | 126     | 15,17   | 103      | 571      | -1         | 5.16        |
| 3744      | 126     | 16,17   | 260      | 571      | -1         | 2.16        |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 3744      | 126     | 18,19   | 4        | 37       | -1         | 8.09        |
| 3744      | 126     | 18,20   | 4        | 13       | -1         | 3.8         |
| 3744      | 126     | 19,20   | 37       | 13       | 2.13       | -1          |
| 3744      | 126     | 27,28   | 638      | 323      | 2.14       | -1          |
| 3762      | 555103  | 15,17   | 0        | 7        | -1         | 6.52        |
| 3762      | 555103  | 23,24   | 0        | 6        | -1         | 5.94        |
| 3774      | 531145  | 28,29   | 6        | 0        | 7.48       | -1          |
| 3782      | 129715  | 08,09   | 3        | 27       | -1         | 6.44        |
| 3807      | 554764  | 25,26   | 32       | 0        | 30.89      | -1          |
| 3810      | 556561  | 15,17   | 0        | 10       | -1         | 9.32        |
| 3810      | 556561  | 16,17   | 1        | 10       | -1         | 9.85        |
| 3823      | 553787  | 28,29   | 10       | 0        | 12.46      | -1          |
| 3848      | 556759  | 12,13   | 8        | 1        | 8.26       | -1          |
| 3848      | 556759  | 15,16   | 11       | 2        | 5.81       | -1          |
| 3848      | 556759  | 16,17   | 2        | 18       | -1         | 8.86        |
| 3848      | 556759  | 27,29   | 21       | 1        | 28.33      | -1          |
| 3848      | 556759  | 28,29   | 18       | 1        | 22.43      | -1          |
| 3848      | 556759  | 30,31   | 10       | 1        | 11.12      | -1          |
| 3857      | 503452  | 16,17   | 1        | 8        | -1         | 7.88        |
| 3861      | 2284    | 23,24   | 6        | 17       | -1         | 2.8         |
| 3861      | 2284    | 25,26   | 17       | 4        | 4.1        | -1          |
| 3861      | 2284    | 30,31   | 14       | 32       | -1         | 2.05        |
| 3864      | 560984  | 16,17   | 0        | 6        | -1         | 5.91        |
| 3873      | 551444  | 23,24   | 6        | 0        | 6.06       | -1          |
| 3881      | 548858  | 16,17   | 0        | 11       | -1         | 10.83       |
| 3885      | 411113  | 16,17   | 0        | 6        | -1         | 5.91        |
| 3894      | 594994  | 28,29   | 6        | 0        | 7.48       | -1          |
| 3904      | 562550  | 16,17   | 0        | 6        | -1         | 5.91        |
| 3922      | 460445  | 16,17   | 0        | 6        | -1         | 5.91        |
| 3925      | 931     | 01,02   | 23       | 59       | -1         | 2.78        |
| 3925      | 931     | 18,19   | 0        | 9        | -1         | 7.88        |
| 3925      | 931     | 30,31   | 70       | 195      | -1         | 2.5         |
| 3940      | 388688  | 27,29   | 8        | 2        | 5.4        | -1          |
| 3940      | 388688  | 28,29   | 17       | 2        | 10.59      | -1          |
| 4009      | 380127  | 28,29   | 9        | 26       | -1         | 2.32        |
| 4016      | 378459  | 23,24   | 1        | 9        | -1         | 8.91        |
| 4017      | 550571  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4036      | 607430  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4039      | 558098  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4039      | 558098  | 30,31   | 9        | 1        | 10.01      | -1          |
| 4041      | 557928  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4079      | 557928  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4100      | 450242  | 30,31   | 7        | 0        | 7.79       | -1          |
| 4106      | 448450  | 27,28   | 0        | 7        | -1         | 6.46        |
| 4106      | 448450  | 28,29   | 7        | 0        | 8.72       | -1          |
| 4111      | 560538  | 16,17   | 0        | 8        | -1         | 7.88        |
| 4115      | 420892  | 13,14   | 0        | 6        | -1         | 5.91        |
| 4138      | 450883  | 28,29   | 5        | 0        | 6.23       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 4139      | 638971  | 15,17   | 8        | 0        | 8.59       | -1          |
| 4149      | 643804  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4149      | 643804  | 15,17   | 6        | 0        | 6.44       | -1          |
| 4150      | 97909   | 27,28   | 31       | 12       | 2.8        | -1          |
| 4150      | 97909   | 28,29   | 12       | 35       | -1         | 2.34        |
| 4150      | 97909   | 30,31   | 18       | 54       | -1         | 2.7         |
| 4157      | 603857  | 27,29   | 17       | 3        | 7.64       | -1          |
| 4157      | 603857  | 28,29   | 31       | 3        | 12.87      | -1          |
| 4162      | 641683  | 15,16   | 8        | 0        | 8.46       | -1          |
| 4162      | 641683  | 15,17   | 8        | 0        | 8.59       | -1          |
| 4176      | 640889  | 15,17   | 6        | 0        | 6.44       | -1          |
| 4178      | 643594  | 15,16   | 7        | 0        | 7.4        | -1          |
| 4178      | 643594  | 15,17   | 7        | 0        | 7.51       | -1          |
| 4195      | 641728  | 28,29   | 7        | 1        | 8.72       | -1          |
| 4203      | 359500  | 12,13   | 14       | 4        | 3.61       | -1          |
| 4203      | 359500  | 27,28   | 18       | 4        | 4.87       | -1          |
| 4203      | 359500  | 28,29   | 4        | 17       | -1         | 3.41        |
| 4203      | 359500  | 30,31   | 8        | 22       | -1         | 2.47        |
| 4204      | 649558  | 15,16   | 12       | 3        | 4.23       | -1          |
| 4204      | 649558  | 15,17   | 12       | 0        | 12.88      | -1          |
| 4231      | 451401  | 15,17   | 9        | 1        | 9.66       | -1          |
| 4234      | 417259  | 15,17   | 4        | 14       | -1         | 3.26        |
| 4234      | 417259  | 16,17   | 1        | 14       | -1         | 13.79       |
| 4240      | 453006  | 27,28   | 0        | 8        | -1         | 7.39        |
| 4240      | 453006  | 28,29   | 8        | 0        | 9.97       | -1          |
| 4247      | 498194  | 27,28   | 0        | 7        | -1         | 6.46        |
| 4247      | 498194  | 28,29   | 7        | 0        | 8.72       | -1          |
| 4250      | 556326  | 16,17   | 0        | 8        | -1         | 7.88        |
| 4257      | 649106  | 15,17   | 7        | 0        | 7.51       | -1          |
| 4264      | 284586  | 15,17   | 8        | 0        | 8.59       | -1          |
| 4264      | 284586  | 27,28   | 0        | 17       | -1         | 15.7        |
| 4264      | 284586  | 28,29   | 17       | 0        | 21.18      | -1          |
| 4265      | 642535  | 27,28   | 0        | 8        | -1         | 7.39        |
| 4265      | 642535  | 28,29   | 8        | 0        | 9.97       | -1          |
| 4270      | 801     | 30,31   | 25       | 7        | 3.97       | -1          |
| 4271      | 449956  | 12,13   | 6        | 0        | 6.2        | -1          |
| 4271      | 449956  | 16,17   | 10       | 1        | 10.16      | -1          |
| 4271      | 449956  | 28,29   | 10       | 0        | 12.46      | -1          |
| 4271      | 449956  | 30,31   | 8        | 1        | 8.9        | -1          |
| 4283      | 455113  | 27,29   | 11       | 3        | 4.95       | -1          |
| 4283      | 455113  | 28,29   | 13       | 3        | 5.4        | -1          |
| 4285      | 1558    | 03,04   | 25       | 97       | -1         | 3.98        |
| 4287      | 546705  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4293      | 452212  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4298      | 37862   | 25,26   | 14       | 0        | 13.51      | -1          |
| 4299      | 644609  | 15,17   | 7        | 0        | 7.51       | -1          |
| 4311      | 553877  | 16,17   | 1        | 8        | -1         | 7.88        |
| 4319      | 550562  | 27,28   | 1        | 9        | -1         | 8.31        |



| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 4319      | 550562  | 28,29   | 9        | 1        | 11.21      | -1          |
| 4320      | 648320  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4320      | 648320  | 15,17   | 6        | 0        | 6.44       | -1          |
| 4327      | 27083   | 16,17   | 11       | 0        | 11.17      | -1          |
| 4327      | 27083   | 25,26   | 17       | 56       | -1         | 3.41        |
| 4327      | 27083   | 28,29   | 1        | 14       | -1         | 11.24       |
| 4327      | 27083   | 30,31   | 31       | 99       | -1         | 2.87        |
| 4336      | 453079  | 16,17   | 8        | 1        | 8.12       | -1          |
| 4346      | 561558  | 28,29   | 6        | 0        | 7.48       | -1          |
| 4349      | 451037  | 23,24   | 5        | 15       | -1         | 2.97        |
| 4358      | 639232  | 23,24   | 0        | 6        | -1         | 5.94        |
| 4358      | 639232  | 25,26   | 10       | 0        | 9.65       | -1          |
| 4358      | 639232  | 30,31   | 9        | 0        | 10.01      | -1          |
| 4361      | 461835  | 15,16   | 7        | 0        | 7.4        | -1          |
| 4361      | 461835  | 28,29   | 5        | 0        | 6.23       | -1          |
| 4366      | 1093    | 27,28   | 43       | 20       | 2.33       | -1          |
| 4366      | 1093    | 30,31   | 5        | 18       | -1         | 3.24        |
| 4371      | 644240  | 15,17   | 7        | 0        | 7.51       | -1          |
| 4375      | 388688  | 27,29   | 8        | 2        | 5.4        | -1          |
| 4375      | 388688  | 28,29   | 17       | 2        | 10.59      | -1          |
| 4380      | 648996  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4380      | 648996  | 15,17   | 6        | 0        | 6.44       | -1          |
| 4406      | 449836  | 15,17   | 8        | 1        | 8.59       | -1          |
| 4413      | 640525  | 15,16   | 7        | 0        | 7.4        | -1          |
| 4413      | 640525  | 15,17   | 7        | 0        | 7.51       | -1          |
| 4417      | 388085  | 15,16   | 9        | 0        | 9.51       | -1          |
| 4417      | 388085  | 15,17   | 9        | 0        | 9.66       | -1          |
| 4421      | 448787  | 15,17   | 23       | 9        | 2.74       | -1          |
| 4421      | 448787  | 16,17   | 22       | 9        | 2.48       | -1          |
| 4435      | 554742  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4441      | 549640  | 27,28   | 0        | 7        | -1         | 6.46        |
| 4441      | 549640  | 30,31   | 15       | 6        | 2.78       | -1          |
| 4445      | 530774  | 15,17   | 5        | 16       | -1         | 2.98        |
| 4446      | 375814  | 15,16   | 8        | 0        | 8.46       | -1          |
| 4446      | 375814  | 15,17   | 8        | 1        | 8.59       | -1          |
| 4447      | 446789  | 15,16   | 16       | 5        | 3.38       | -1          |
| 4450      | 503491  | 16,17   | 6        | 0        | 6.09       | -1          |
| 4452      | 639441  | 23,24   | 1        | 8        | -1         | 7.92        |
| 4454      | 649035  | 27,28   | 0        | 7        | -1         | 6.46        |
| 4454      | 649035  | 28,29   | 7        | 0        | 8.72       | -1          |
| 4461      | 470602  | 15,16   | 12       | 1        | 12.68      | -1          |
| 4461      | 470602  | 16,17   | 1        | 9        | -1         | 8.86        |
| 4477      | 453708  | 15,17   | 1        | 19       | -1         | 17.7        |
| 4477      | 453708  | 16,17   | 1        | 19       | -1         | 18.71       |
| 4483      | 551527  | 15,17   | 0        | 7        | -1         | 6.52        |
| 4503      | 549945  | 15,16   | 12       | 2        | 6.34       | -1          |
| 4503      | 549945  | 15,17   | 12       | 2        | 6.44       | -1          |
| 4505      | 391511  | 27,28   | 8        | 0        | 8.66       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 4515      | 420686  | 16,17   | 0        | 8        | -1         | 7.88        |
| 4517      | 551995  | 28,29   | 7        | 0        | 8.72       | -1          |
| 4523      | 451032  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4538      | 557852  | 28,29   | 6        | 0        | 7.48       | -1          |
| 4542      | 554500  | 15,16   | 6        | 0        | 6.34       | -1          |
| 4550      | 43642   | 16,17   | 0        | 6        | -1         | 5.91        |
| 4551      | 595506  | 15,16   | 0        | 6        | -1         | 5.68        |
| 4553      | 555702  | 15,16   | 11       | 2        | 5.81       | -1          |
| 4556      | 519109  | 23,24   | 1        | 34       | -1         | 33.65       |
| 4557      | 450829  | 15,17   | 0        | 8        | -1         | 7.45        |
| 4557      | 450829  | 16,17   | 0        | 8        | -1         | 7.88        |
| 4598      | 386940  | 27,28   | 0        | 14       | -1         | 12.93       |
| 4598      | 386940  | 28,29   | 14       | 0        | 17.44      | -1          |
| 4611      | 375380  | 15,17   | 1        | 9        | -1         | 8.38        |
| 4611      | 375380  | 16,17   | 0        | 9        | -1         | 8.86        |
| 4619      | 553850  | 28,29   | 5        | 0        | 6.23       | -1          |
| 4627      | 557401  | 15,17   | 10       | 2        | 5.37       | -1          |
| 4632      | 349744  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4635      | 449437  | 15,16   | 14       | 3        | 4.93       | -1          |
| 4635      | 449437  | 16,17   | 3        | 12       | -1         | 3.94        |
| 4635      | 449437  | 27,28   | 0        | 8        | -1         | 7.39        |
| 4635      | 449437  | 28,29   | 8        | 0        | 9.97       | -1          |
| 4645      | 562292  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4652      | 224812  | 16,17   | 31       | 63       | -1         | 2           |
| 4652      | 224812  | 25,26   | 200      | 686      | -1         | 3.55        |
| 4652      | 224812  | 27,29   | 84       | 38       | 2.98       | -1          |
| 4652      | 224812  | 28,29   | 80       | 38       | 2.62       | -1          |
| 4670      | 446739  | 28,29   | 5        | 0        | 6.23       | -1          |
| 4684      | 247     | 15,17   | 15       | 44       | -1         | 2.73        |
| 4684      | 247     | 18,19   | 0        | 15       | -1         | 13.13       |
| 4684      | 247     | 30,31   | 11       | 51       | -1         | 4.17        |
| 4686      | 491799  | 15,16   | 0        | 11       | -1         | 10.41       |
| 4691      | 461     | 15,16   | 14       | 39       | -1         | 2.64        |
| 4691      | 461     | 15,17   | 14       | 34       | -1         | 2.26        |
| 4691      | 461     | 18,19   | 1        | 10       | -1         | 8.75        |
| 4691      | 461     | 19,20   | 10       | 0        | 7.48       | -1          |
| 4691      | 461     | 27,29   | 41       | 124      | -1         | 2.24        |
| 4691      | 461     | 28,29   | 37       | 124      | -1         | 2.69        |
| 4691      | 461     | 30,31   | 21       | 119      | -1         | 5.09        |
| 4696      | 562292  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4702      | 487182  | 15,17   | 2        | 11       | -1         | 5.12        |
| 4702      | 487182  | 16,17   | 1        | 11       | -1         | 10.83       |
| 4702      | 487182  | 25,26   | 3        | 72       | -1         | 24.87       |
| 4706      | 561046  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4746      | 556040  | 23,24   | 2        | 15       | -1         | 7.42        |
| 4748      | 452822  | 15,16   | 9        | 23       | -1         | 2.42        |
| 4758      | 455820  | 16,17   | 0        | 7        | -1         | 6.89        |
| 4767      | 556802  | 28,29   | 8        | 0        | 9.97       | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 4771      | 465446  | 25,26   | 26       | 11       | 2.28       | -1          |
| 4826      | 452775  | 27,28   | 1        | 9        | -1         | 8.31        |
| 4827      | 560868  | 27,29   | 6        | 0        | 8.09       | -1          |
| 4835      | 558534  | 16,17   | 0        | 7        | -1         | 6.89        |
| 4850      | 549591  | 15,17   | 2        | 24       | -1         | 11.18       |
| 4850      | 549591  | 16,17   | 7        | 24       | -1         | 3.38        |
| 4885      | 27586   | 12,13   | 7        | 22       | -1         | 3.04        |
| 4885      | 27586   | 12,14   | 7        | 21       | -1         | 2.86        |
| 4885      | 27586   | 21,22   | 9        | 0        | 8.85       | -1          |
| 4885      | 27586   | 25,26   | 17       | 0        | 16.41      | -1          |
| 4885      | 27586   | 30,31   | 24       | 0        | 26.69      | -1          |
| 4888      | 561558  | 28,29   | 6        | 0        | 7.48       | -1          |
| 4900      | 2435    | 15,17   | 0        | 8        | -1         | 7.45        |
| 4900      | 2435    | 27,28   | 0        | 7        | -1         | 6.46        |
| 4900      | 2435    | 28,29   | 7        | 1        | 8.72       | -1          |
| 4907      | 554604  | 15,17   | 0        | 7        | -1         | 6.52        |
| 4922      | 559057  | 15,17   | 0        | 7        | -1         | 6.52        |
| 4927      | 553877  | 16,17   | 1        | 8        | -1         | 7.88        |
| 4950      | 549911  | 16,17   | 0        | 6        | -1         | 5.91        |
| 4959      | 409612  | 25,26   | 6        | 0        | 5.79       | -1          |
| 4972      | 226324  | 15,17   | 0        | 8        | -1         | 7.45        |
| 4972      | 226324  | 16,17   | 0        | 8        | -1         | 7.88        |
| 4972      | 226324  | 27,29   | 5        | 0        | 6.75       | -1          |
| 4986      | 413915  | 12,13   | 6        | 0        | 6.2        | -1          |
| 4986      | 413915  | 12,14   | 6        | 0        | 6.29       | -1          |
| 5007      | 2284    | 23,24   | 6        | 17       | -1         | 2.8         |
| 5007      | 2284    | 25,26   | 17       | 4        | 4.1        | -1          |
| 5007      | 2284    | 30,31   | 14       | 32       | -1         | 2.05        |
| 5018      | 365634  | 15,16   | 12       | 2        | 6.34       | -1          |
| 5018      | 365634  | 16,17   | 2        | 14       | -1         | 6.89        |
| 5018      | 365634  | 25,26   | 10       | 0        | 9.65       | -1          |
| 5026      | 549829  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5033      | 411113  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5042      | 1079    | 03,04   | 24       | 55       | -1         | 2.35        |
| 5042      | 1079    | 28,29   | 16       | 44       | -1         | 2.21        |
| 5047      | 397581  | 28,29   | 6        | 20       | -1         | 2.68        |
| 5047      | 397581  | 27,29   | 1        | 20       | -1         | 14.83       |
| 5051      | 23961   | 15,16   | 102      | 44       | 2.45       | -1          |
| 5051      | 23961   | 15,17   | 102      | 40       | 2.74       | -1          |
| 5051      | 23961   | 25,26   | 73       | 169      | -1         | 2.4         |
| 5058      | 446900  | 15,17   | 1        | 11       | -1         | 10.25       |
| 5058      | 446900  | 16,17   | 2        | 11       | -1         | 5.42        |
| 5065      | 448677  | 15,16   | 11       | 1        | 11.63      | -1          |
| 5067      | 560538  | 16,17   | 0        | 8        | -1         | 7.88        |
| 5079      | 62458   | 15,16   | 2        | 14       | -1         | 6.62        |
| 5079      | 62458   | 15,17   | 2        | 11       | -1         | 5.12        |
| 5079      | 62458   | 25,26   | 20       | 227      | -1         | 11.76       |
| 5079      | 62458   | 30,31   | 19       | 245      | -1         | 11.59       |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 5102      | 556216  | 15,17   | 0        | 7        | -1         | 6.52        |
| 5102      | 556216  | 16,17   | 0        | 7        | -1         | 6.89        |
| 5117      | 549041  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5133      | 453004  | 27,28   | 0        | 8        | -1         | 7.39        |
| 5133      | 453004  | 28,29   | 8        | 0        | 9.97       | -1          |
| 5135      | 560868  | 27,29   | 6        | 0        | 8.09       | -1          |
| 5147      | 403419  | 13,14   | 0        | 9        | -1         | 8.87        |
| 5147      | 403419  | 27,29   | 7        | 0        | 9.44       | -1          |
| 5161      | 559806  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5168      | 550562  | 27,28   | 1        | 9        | -1         | 8.31        |
| 5168      | 550562  | 28,29   | 9        | 1        | 11.21      | -1          |
| 5186      | 91178   | 15,17   | 0        | 7        | -1         | 6.52        |
| 5188      | 561485  | 15,17   | 0        | 7        | -1         | 6.52        |
| 5188      | 561485  | 16,17   | 0        | 7        | -1         | 6.89        |
| 5195      | 558412  | 30,31   | 6        | 0        | 6.67       | -1          |
| 5200      | 453846  | 15,17   | 0        | 11       | -1         | 10.25       |
| 5221      | 562565  | 15,16   | 0        | 8        | -1         | 7.57        |
| 5221      | 562565  | 27,28   | 11       | 1        | 11.91      | -1          |
| 5221      | 562565  | 27,29   | 11       | 0        | 14.84      | -1          |
| 5228      | 553705  | 15,16   | 12       | 0        | 12.68      | -1          |
| 5228      | 553705  | 28,29   | 8        | 0        | 9.97       | -1          |
| 5231      | 562459  | 16,17   | 2        | 10       | -1         | 4.92        |
| 5231      | 562459  | 27,28   | 13       | 29       | -1         | 2.06        |
| 5231      | 562459  | 27,29   | 13       | 1        | 17.54      | -1          |
| 5231      | 562459  | 28,29   | 29       | 1        | 36.13      | -1          |
| 5236      | 62458   | 15,16   | 2        | 14       | -1         | 6.62        |
| 5236      | 62458   | 15,17   | 2        | 11       | -1         | 5.12        |
| 5236      | 62458   | 25,26   | 20       | 227      | -1         | 11.76       |
| 5236      | 62458   | 30,31   | 19       | 245      | -1         | 11.59       |
| 5240      | 448741  | 28,29   | 6        | 0        | 7.48       | -1          |
| 5249      | 451401  | 15,17   | 9        | 1        | 9.66       | -1          |
| 5258      | 451802  | 15,17   | 0        | 9        | -1         | 8.38        |
| 5258      | 451802  | 16,17   | 1        | 9        | -1         | 8.86        |
| 5264      | 452775  | 27,28   | 1        | 9        | -1         | 8.31        |
| 5268      | 92639   | 12,14   | 2        | 11       | -1         | 5.25        |
| 5271      | 452500  | 27,28   | 0        | 15       | -1         | 13.85       |
| 5271      | 452500  | 28,29   | 15       | 5        | 3.74       | -1          |
| 5272      | 452204  | 15,16   | 9        | 1        | 9.51       | -1          |
| 5272      | 452204  | 16,17   | 1        | 8        | -1         | 7.88        |
| 5272      | 452204  | 23,24   | 3        | 13       | -1         | 4.29        |
| 5272      | 452204  | 27,28   | 0        | 14       | -1         | 12.93       |
| 5272      | 452204  | 28,29   | 14       | 0        | 17.44      | -1          |
| 5273      | 447025  | 15,16   | 48       | 19       | 2.67       | -1          |
| 5273      | 447025  | 27,28   | 0        | 8        | -1         | 7.39        |
| 5273      | 447025  | 27,29   | 0        | 13       | -1         | 9.64        |
| 5277      | 452052  | 15,17   | 8        | 1        | 8.59       | -1          |
| 5277      | 452052  | 27,28   | 2        | 14       | -1         | 6.46        |
| 5277      | 452052  | 28,29   | 14       | 0        | 17.44      | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 5281      | 452142  | 15,16   | 1        | 10       | -1         | 9.46        |
| 5281      | 452142  | 16,17   | 10       | 2        | 5.08       | -1          |
| 5282      | 451994  | 27,28   | 4        | 17       | -1         | 3.92        |
| 5297      | 4244    | 28,29   | 8        | 28       | -1         | 2.81        |
| 5308      | 450262  | 21,22   | 0        | 8        | -1         | 8.13        |
| 5308      | 450262  | 27,28   | 30       | 14       | 2.32       | -1          |
| 5308      | 450262  | 28,29   | 14       | 46       | -1         | 2.64        |
| 5311      | 452506  | 15,16   | 8        | 1        | 8.46       | -1          |
| 5311      | 452506  | 28,29   | 6        | 0        | 7.48       | -1          |
| 5313      | 7022    | 25,26   | 7        | 0        | 6.76       | -1          |
| 5313      | 7022    | 27,28   | 4        | 16       | -1         | 3.69        |
| 5313      | 7022    | 28,29   | 16       | 5        | 3.99       | -1          |
| 5315      | 2930    | 01,02   | 3        | 14       | -1         | 5.06        |
| 5315      | 2930    | 27,29   | 5        | 0        | 6.75       | -1          |
| 5315      | 2930    | 28,29   | 7        | 0        | 8.72       | -1          |
| 5317      | 454226  | 28,29   | 5        | 0        | 6.23       | -1          |
| 5321      | 453470  | 15,16   | 12       | 1        | 12.68      | -1          |
| 5321      | 453470  | 15,17   | 12       | 1        | 12.88      | -1          |
| 5324      | 454050  | 27,28   | 0        | 7        | -1         | 6.46        |
| 5338      | 454518  | 27,29   | 6        | 0        | 8.09       | -1          |
| 5338      | 454518  | 28,29   | 6        | 0        | 7.48       | -1          |
| 5350      | 23649   | 27,28   | 37       | 12       | 3.34       | -1          |
| 5350      | 23649   | 27,29   | 37       | 0        | 49.92      | -1          |
| 5350      | 23649   | 28,29   | 12       | 0        | 14.95      | -1          |
| 5357      | 519109  | 23,24   | 1        | 34       | -1         | 33.65       |
| 5360      | 453783  | 27,28   | 0        | 8        | -1         | 7.39        |
| 5360      | 453783  | 28,29   | 8        | 0        | 9.97       | -1          |
| 5365      | 454509  | 25,26   | 7        | 0        | 6.76       | -1          |
| 5365      | 454509  | 27,28   | 6        | 0        | 6.5        | -1          |
| 5366      | 454562  | 23,24   | 13       | 4        | 3.28       | -1          |
| 5366      | 454562  | 25,26   | 7        | 0        | 6.76       | -1          |
| 5370      | 453783  | 27,28   | 0        | 8        | -1         | 7.39        |
| 5370      | 453783  | 28,29   | 8        | 0        | 9.97       | -1          |
| 5373      | 801     | 30,31   | 25       | 7        | 3.97       | -1          |
| 5374      | 453494  | 27,28   | 7        | 0        | 7.58       | -1          |
| 5374      | 453494  | 30,31   | 6        | 0        | 6.67       | -1          |
| 5375      | 453202  | 15,16   | 6        | 0        | 6.34       | -1          |
| 5375      | 453202  | 16,17   | 0        | 11       | -1         | 10.83       |
| 5381      | 387530  | 30,31   | 2        | 24       | -1         | 10.79       |
| 5382      | 453846  | 15,17   | 0        | 11       | -1         | 10.25       |
| 5391      | 551995  | 28,29   | 7        | 0        | 8.72       | -1          |
| 5397      | 446531  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5401      | 453508  | 25,26   | 27       | 9        | 2.9        | -1          |
| 5401      | 453508  | 27,28   | 9        | 1        | 9.75       | -1          |
| 5413      | 560868  | 27,29   | 6        | 0        | 8.09       | -1          |
| 5448      | 554742  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5467      | 551617  | 15,16   | 9        | 0        | 9.51       | -1          |
| 5467      | 551617  | 16,17   | 0        | 7        | -1         | 6.89        |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 5489      | 468672  | 15,16   | 6        | 0        | 6.34       | -1          |
| 5489      | 468672  | 16,17   | 0        | 8        | -1         | 7.88        |
| 5501      | 402836  | 12,13   | 130      | 63       | 2.13       | -1          |
| 5501      | 402836  | 23,24   | 17       | 4        | 4.29       | -1          |
| 5508      | 561707  | 27,29   | 6        | 0        | 8.09       | -1          |
| 5508      | 561707  | 30,31   | 9        | 1        | 10.01      | -1          |
| 5509      | 561180  | 15,16   | 11       | 2        | 5.81       | -1          |
| 5513      | 562137  | 23,24   | 8        | 0        | 8.08       | -1          |
| 5518      | 449356  | 15,17   | 7        | 21       | -1         | 2.79        |
| 5518      | 449356  | 16,17   | 4        | 21       | -1         | 5.17        |
| 5525      | 549511  | 15,17   | 0        | 7        | -1         | 6.52        |
| 5525      | 549511  | 16,17   | 0        | 7        | -1         | 6.89        |
| 5526      | 560700  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5535      | 452523  | 15,17   | 10       | 2        | 5.37       | -1          |
| 5537      | 406092  | 18,19   | 16       | 2        | 9.14       | -1          |
| 5537      | 406092  | 25,26   | 7        | 0        | 6.76       | -1          |
| 5537      | 406092  | 27,28   | 1        | 26       | -1         | 24.01       |
| 5537      | 406092  | 27,29   | 1        | 28       | -1         | 20.76       |
| 5537      | 406092  | 30,31   | 13       | 4        | 3.61       | -1          |
| 5542      | 235874  | 12,13   | 62       | 239      | -1         | 3.73        |
| 5542      | 235874  | 12,14   | 62       | 317      | -1         | 4.88        |
| 5542      | 235874  | 25,26   | 102      | 21       | 4.69       | -1          |
| 5542      | 235874  | 27,28   | 73       | 16       | 4.94       | -1          |
| 5542      | 235874  | 28,29   | 16       | 70       | -1         | 3.51        |
| 5542      | 235874  | 30,31   | 119      | 9        | 14.71      | -1          |
| 5550      | 452957  | 27,29   | 5        | 0        | 6.75       | -1          |
| 5550      | 452957  | 28,29   | 6        | 0        | 7.48       | -1          |
| 5554      | 455855  | 27,29   | 8        | 0        | 10.79      | -1          |
| 5559      | 510254  | 15,16   | 17       | 1        | 17.97      | -1          |
| 5559      | 510254  | 16,17   | 1        | 8        | -1         | 7.88        |
| 5560      | 451812  | 27,29   | 7        | 1        | 9.44       | -1          |
| 5565      | 450225  | 15,17   | 11       | 3        | 3.94       | -1          |
| 5565      | 450225  | 27,28   | 1        | 24       | -1         | 22.16       |
| 5565      | 450225  | 28,29   | 24       | 1        | 29.9       | -1          |
| 5572      | 503122  | 25,26   | 8        | 178      | -1         | 23.05       |
| 5572      | 503122  | 27,29   | 12       | 2        | 8.09       | -1          |
| 5572      | 503122  | 30,31   | 22       | 98       | -1         | 4           |
| 5578      | 446936  | 23,24   | 10       | 26       | -1         | 2.57        |
| 5578      | 446936  | 25,26   | 17       | 38       | -1         | 2.32        |
| 5578      | 446936  | 27,28   | 158      | 31       | 5.52       | -1          |
| 5578      | 446936  | 27,29   | 158      | 27       | 7.89       | -1          |
| 5589      | 453079  | 16,17   | 8        | 1        | 8.12       | -1          |
| 5599      | 454226  | 28,29   | 5        | 0        | 6.23       | -1          |
| 5600      | 452973  | 27,28   | 0        | 9        | -1         | 8.31        |
| 5600      | 452973  | 28,29   | 9        | 2        | 5.61       | -1          |
| 5606      | 452648  | 23,24   | 2        | 15       | -1         | 7.42        |
| 5611      | 366607  | 27,28   | 1        | 12       | -1         | 11.08       |
| 5611      | 366607  | 28,29   | 12       | 0        | 14.95      | -1          |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 5617      | 521840  | 15,16   | 6        | 0        | 6.34       | -1          |
| 5620      | 523674  | 28,29   | 5        | 0        | 6.23       | -1          |
| 5624      | 452775  | 27,28   | 1        | 9        | -1         | 8.31        |
| 5634      | 454460  | 27,28   | 0        | 13       | -1         | 12.01       |
| 5634      | 454460  | 28,29   | 13       | 2        | 8.1        | -1          |
| 5662      | 456001  | 28,29   | 10       | 1        | 12.46      | -1          |
| 5665      | 450914  | 15,16   | 0        | 6        | -1         | 5.68        |
| 5666      | 455855  | 27,29   | 8        | 0        | 10.79      | -1          |
| 5688      | 400258  | 16,17   | 6        | 0        | 6.09       | -1          |
| 5688      | 400258  | 27,28   | 7        | 0        | 7.58       | -1          |
| 5697      | 2544    | 01,02   | 23       | 9        | 2.36       | -1          |
| 5697      | 2544    | 03,04   | 13       | 30       | -1         | 2.37        |
| 5699      | 402534  | 12,13   | 8        | 21       | -1         | 2.54        |
| 5704      | 456567  | 28,29   | 5        | 0        | 6.23       | -1          |
| 5710      | 455601  | 15,17   | 10       | 0        | 10.73      | -1          |
| 5710      | 455601  | 16,17   | 8        | 0        | 8.12       | -1          |
| 5712      | 402916  | 23,24   | 8        | 0        | 8.08       | -1          |
| 5712      | 402916  | 27,28   | 22       | 5        | 4.76       | -1          |
| 5712      | 402916  | 27,29   | 22       | 4        | 7.42       | -1          |
| 5714      | 27586   | 12,13   | 7        | 22       | -1         | 3.04        |
| 5714      | 27586   | 12,14   | 7        | 21       | -1         | 2.86        |
| 5714      | 27586   | 21,22   | 9        | 0        | 8.85       | -1          |
| 5714      | 27586   | 25,26   | 17       | 0        | 16.41      | -1          |
| 5714      | 27586   | 30,31   | 24       | 0        | 26.69      | -1          |
| 5732      | 407711  | 15,16   | 0        | 6        | -1         | 5.68        |
| 5733      | 411113  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5742      | 400426  | 12,14   | 22       | 10       | 2.31       | -1          |
| 5752      | 155374  | 15,16   | 6        | 0        | 6.34       | -1          |
| 5752      | 155374  | 15,17   | 6        | 0        | 6.44       | -1          |
| 5752      | 155374  | 27,28   | 27       | 1        | 29.24      | -1          |
| 5752      | 155374  | 27,29   | 27       | 0        | 36.42      | -1          |
| 5753      | 409612  | 25,26   | 6        | 0        | 5.79       | -1          |
| 5759      | 1054    | 03,04   | 49       | 23       | 2.08       | -1          |
| 5759      | 1054    | 12,14   | 54       | 24       | 2.36       | -1          |
| 5759      | 1054    | 15,17   | 64       | 28       | 2.45       | -1          |
| 5759      | 1054    | 18,20   | 3        | 19       | -1         | 7.41        |
| 5759      | 1054    | 19,20   | 5        | 19       | -1         | 5.08        |
| 5759      | 1054    | 27,29   | 64       | 31       | 2.79       | -1          |
| 5759      | 1054    | 28,29   | 69       | 31       | 2.77       | -1          |
| 5759      | 1054    | 30,31   | 27       | 15       | 2          | -1          |
| 5761      | 400454  | 12,14   | 9        | 1        | 9.43       | -1          |
| 5765      | 409589  | 27,29   | 5        | 0        | 6.75       | -1          |
| 5768      | 20517   | 12,13   | 18       | 3        | 6.2        | -1          |
| 5768      | 20517   | 13,14   | 3        | 18       | -1         | 5.91        |
| 5769      | 413915  | 12,13   | 6        | 0        | 6.2        | -1          |
| 5769      | 413915  | 12,14   | 6        | 0        | 6.29       | -1          |
| 5772      | 401510  | 12,14   | 8        | 0        | 8.39       | -1          |
| 5775      | 417259  | 15,17   | 4        | 14       | -1         | 3.26        |

| SEQ ID NO | CLUSTER | PAIR AB | CLONES A | CLONES B | RATIO PLUS | RATIO MINUS |
|-----------|---------|---------|----------|----------|------------|-------------|
| 5775      | 417259  | 16,17   | 1        | 14       | -1         | 13.79       |
| 5776      | 20517   | 12,13   | 18       | 3        | 6.2        | -1          |
| 5776      | 20517   | 13,14   | 3        | 18       | -1         | 5.91        |
| 5778      | 402534  | 12,13   | 8        | 21       | -1         | 2.54        |
| 5780      | 419255  | 15,16   | 11       | 0        | 11.63      | -1          |
| 5780      | 419255  | 15,17   | 11       | 1        | 11.81      | -1          |
| 5788      | 402070  | 27,28   | 1        | 9        | -1         | 8.31        |
| 5788      | 402070  | 28,29   | 9        | 0        | 11.21      | -1          |
| 5789      | 402070  | 27,28   | 1        | 9        | -1         | 8.31        |
| 5789      | 402070  | 28,29   | 9        | 0        | 11.21      | -1          |
| 5792      | 402353  | 12,13   | 13       | 4        | 3.36       | -1          |
| 5794      | 163970  | 18,20   | 12       | 25       | -1         | 2.44        |
| 5794      | 163970  | 19,20   | 7        | 25       | -1         | 4.77        |
| 5794      | 163970  | 27,28   | 7        | 39       | -1         | 5.15        |
| 5794      | 163970  | 28,29   | 39       | 7        | 6.94       | -1          |
| 5794      | 163970  | 30,31   | 29       | 6        | 5.38       | -1          |
| 5801      | 268336  | 15,16   | 8        | 1        | 8.46       | -1          |
| 5807      | 20517   | 12,13   | 18       | 3        | 6.2        | -1          |
| 5807      | 20517   | 13,14   | 3        | 18       | -1         | 5.91        |
| 5822      | 420686  | 16,17   | 0        | 8        | -1         | 7.88        |
| 5823      | 447579  | 23,24   | 3        | 13       | -1         | 4.29        |
| 5823      | 447579  | 28,29   | 7        | 0        | 8.72       | -1          |
| 5825      | 463824  | 15,16   | 6        | 0        | 6.34       | -1          |
| 5825      | 463824  | 15,17   | 6        | 0        | 6.44       | -1          |
| 5825      | 463824  | 27,28   | 0        | 8        | -1         | 7.39        |
| 5825      | 463824  | 28,29   | 8        | 0        | 9.97       | -1          |
| 5827      | 388688  | 27,29   | 8        | 2        | 5.4        | -1          |
| 5827      | 388688  | 28,29   | 17       | 2        | 10.59      | -1          |
| 5840      | 446964  | 15,17   | 1        | 12       | -1         | 11.18       |
| 5860      | 403949  | 12,13   | 11       | 1        | 11.36      | -1          |
| 5862      | 235874  | 12,13   | 62       | 239      | -1         | 3.73        |
| 5862      | 235874  | 12,14   | 62       | 317      | -1         | 4.88        |
| 5862      | 235874  | 25,26   | 102      | 21       | 4.69       | -1          |
| 5862      | 235874  | 27,28   | 73       | 16       | 4.94       | -1          |
| 5862      | 235874  | 28,29   | 16       | 70       | -1         | 3.51        |
| 5862      | 235874  | 30,31   | 119      | 9        | 14.71      | -1          |
| 5876      | 644342  | 27,29   | 6        | 0        | 8.09       | -1          |
| 5897      | 644342  | 27,29   | 6        | 0        | 8.09       | -1          |
| 5898      | 419479  | 23,24   | 2        | 11       | -1         | 5.44        |
| 5906      | 451508  | 30,31   | 7        | 0        | 7.79       | -1          |
| 5924      | 218416  | 16,17   | 0        | 6        | -1         | 5.91        |
| 5933      | 463824  | 15,16   | 6        | 0        | 6.34       | -1          |
| 5933      | 463824  | 15,17   | 6        | 0        | 6.44       | -1          |
| 5933      | 463824  | 27,28   | 0        | 8        | -1         | 7.39        |
| 5933      | 463824  | 28,29   | 8        | 0        | 9.97       | -1          |
| 5934      | 389377  | 27,28   | 7        | 0        | 7.58       | -1          |
| 5934      | 389377  | 30,31   | 10       | 1        | 11.12      | -1          |
| 5943      | 18786   | 15,17   | 6        | 0        | 6.44       | -1          |



| SEQ ID NO | CLUSTER | PAIR<br>AB | CLONES A | CLONES B | RATIO<br>PLUS | RATIO<br>MINUS |
|-----------|---------|------------|----------|----------|---------------|----------------|
| 5943      | 18786   | 30,31      | 6        | 0        | 6.67          | -1             |
| 5944      | 447494  | 15,16      | 26       | 8        | 3.44          | -1             |
| 5966      | 1454    | 03,04      | 38       | 14       | 2.65          | -1             |
| 5966      | 1454    | 12,13      | 37       | 15       | 2.55          | -1             |
| 5966      | 1454    | 13,14      | 15       | 35       | -1            | 2.3            |
| 5966      | 1454    | 25,26      | 12       | 3        | 3.86          | -1             |
| 5966      | 1454    | 30,31      | 7        | 22       | -1            | 2.83           |
| 5969      | 15296   | 27,28      | 6        | 0        | 6.5           | -1             |
| 5979      | 446673  | 16,17      | 8        | 1        | 8.12          | -1             |
| 5991      | 446341  | 28,29      | 6        | 0        | 7.48          | -1             |
| 6002      | 379335  | 15,16      | 11       | 0        | 11.63         | -1             |
| 6002      | 379335  | 15,17      | 11       | 0        | 11.81         | -1             |
| 6003      | 228873  | 27,29      | 20       | 0        | 26.98         | -1             |
| 6003      | 228873  | 28,29      | 14       | 0        | 17.44         | -1             |
| 6004      | 446663  | 15,17      | 14       | 32       | -1            | 2.13           |
| 6004      | 446663  | 16,17      | 6        | 32       | -1            | 5.25           |
| 6004      | 446663  | 18,20      | 1        | 8        | -1            | 9.36           |
| 6004      | 446663  | 19,20      | 0        | 8        | -1            | 10.7           |

Table 6

| Pt ID | Path ID | Grp | Anatom Loc       | Size | Grade | Histo Grade | Local Invasion  | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc | Dist Met Grade | Comment   |
|-------|---------|-----|------------------|------|-------|-------------|---|-----------|-----------------|-----------------|----------------|----------------|---|
| 15    | 21      | III | Ascending colon  | 4.0  | T3    | G2          | Extending into subserosal adipose tissue  | Pos       | 3/8             | N1              | Neg            | MX             | invasive adenocarcinoma, moderately differentiated; focal perineural invasion is seen                               |
| 52    | 71      | II  | Cecum            | 9.0  | T3    | G3          | Invasion through muscularis propria, subserosal involvement; ileocecal valve involvement    | Neg       | 0/12            | N0              | Neg            | M0             | Hyperplastic polyp in appendix.   |
| 121   | 140     | II  | Sigmoid          | 6    | T4    | G2          | Invasion of muscularis propria into serosa, involving submucosa of urinary bladder          | Neg       | 0/34            | N0              | Neg            | M0             | Perineural invasion; donut anastomosis Neg. One tubulovillous and one tubular adenoma with no high grade dysplasia. |
| 125   | 144     | II  | Cecum            | 6    | T3    | G2          | Invasion through the muscularis propria into subserosal adipose tissue. Ileocecal junction. | Neg       | 0/19            | N0              | Neg            | M0             | patient history of metastatic melanoma  |
| 128   | 147     | III | Transverse colon | 5.0  | T3    | G2          | Invasion of muscularis propria into pericolonic fat   | Pos       | 1/5             | N1              | Neg            | M0             |   |

Table 6

| Pt ID | Path ID | Grp | Anatom Loc      | Size | Grade | Histo Grade | Local Invasion   | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc | Dist Met Grade | Comment   |
|-------|---------|-----|-----------------|------|-------|-------------|--|-----------|-----------------|-----------------|----------------|----------------|---|
| 130   | 149     |     | Splenic flexure | 5.5  | T3    |             | through wall and into surrounding adipose tissue   | Pos       | 10/24           | N2              | Neg            | M1             |   |
| 133   | 152     | II  | Rectum          | 5.0  | T3    | G2          | Invasion through muscularis propria into non-peritonealized pericolic tissue; gross configuration is annular.              | Neg       | 0/9             | N0              | Neg            | M0             | Small separate tubular adenoma (0.4 cm)                               |
| 141   | 160     | IV  | Cecum           | 5.5  | T3    | G2          | Invasion of muscularis propria into pericolic adipose tissue, but not through serosa. Arising from tubular adenoma.        | Pos       | 7/21            | N2              | Pos - Liver    | M1             | Perineural invasion identified adjacent to metastatic adenocarcinoma. |
| 156   | 175     | III | Hepatic flexure | 3.8  | T3    | G2          | Invasion through muscularis propria into subserosa/pericolic adipose, no serosal involvement. Gross configuration annular. | Pos       | 2/13            | N1              | Neg            | M0             | Separate tubulovillous and tubular adenomas                           |

Table 6

| Pt ID | Path ID | Grp | Anatom Loc       | Size | Grade | Histo Grade | Local Invasion  | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc           | Dist Met Grade | Comment   |
|-------|---------|-----|------------------|------|-------|-------------|---|-----------|-----------------|-----------------|--------------------------|----------------|---|
| 228   | 247     | III | Rectum           | 5.8  | T3    | G2 to G3    | Invasion through muscularis propria to involve subserosal, perirectal adipose, and serosa | Pos       | 1/8             | N1              | Neg                      | MX             | Hyperplastic polyps                                       |
| 264   | 283     | II  | Ascending colon  | 5.5  | T3    | G2          | Invasion through muscularis propria into subserosal adipose tissue.                       | Neg       | 0/10            | N0              | Neg                      | M0             | Tubulovillous adenoma with high grade dysplasia           |
| 266   | 285     | III | Transverse colon | 9    | T3    | G2          | Invades through muscularis propria to involve pericolic adipose, extends to serosa.       | Neg       | 0/15            | N1              | Pos - Mesenteric deposit | MX             |   |
| 268   | 287     | I   | Cecum            | 6.5  | T2    | G2          | Invades full thickness of muscularis propria, but mesenteric adipose free of malignancy   | Neg       | 0/12            | N0              | Neg                      | M0             |   |
| 278   | 297     | III | Rectum           | 4    | T3    | G2          | Invasion into perirectal adipose tissue.  | Pos       | 7/10            | N2              | Neg                      | M0             | Descending colon polyps, no HGD or carcinoma identified.. |

Table 6

| Pt ID | Path ID | Grp | Anatom Loc      | Size          | Grade | Histo Grade | Local Invasion  | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc | Dist Met Grade | Comment   |
|-------|---------|-----|-----------------|---------------|-------|-------------|---|-----------|-----------------|-----------------|----------------|----------------|---|
| 296   | 315     | III | Cecum           | 5.5           | T3    | G2          | Invasion through muscularis propria and invades pericolic adipose tissue. Ileocecal junction. | Pos       | 2/12            | N1              | Neg            | M0             | Tubulovillous adenoma (2.0 cm) with no high grade dysplasia. Neg. liver biopsy. |
| 339   | 358     | II  | Rectosigmoid    | 6             | T3    | G2          | Extends into perirectal fat but does not reach serosa   | Neg       | 0/6             | N0              | Neg            | M0             | 1 hyperplastic polyp identified   |
| 341   | 360     | II  | Ascending colon | 2 cm invasive | T3    | G2          | Invasion through muscularis propria to involve pericolic fat. Arising from villous adenoma.   | Neg       | 0/4             | N0              | Neg            | MX             |   |
| 356   | 375     | II  | Sigmoid         | 6.5           | T3    | G2          | Through colon wall into subserosal adipose tissue. No serosal spread seen.                    | Neg       | 0/4             | N0              | Neg            | M0             |   |
| 360   | 412     | III | Ascending colon | 4.3           | T3    | G2          | Invasion thru muscularis propria to pericolic fat   | Pos       | 1/5             | N1              | Neg            | M0             | Two mucosal polyps  |
| 392   | 444     | IV  | Ascending colon | 2             | T3    | G2          | Invasion through muscularis propria into subserosal adipose tissue, not serosa.               | Pos       | 1/6             | N1              | Pos - Liver    | M1             | Tumor arising at prior ileocolic surgical anastomosis.                          |

Table 6

| Pt ID | Path ID | Grp | Anatom Loc | Size | Grade | Histo Grade | Local Invasion   | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc | Dist Met Grade | Comment  |
|-------|---------|-----|------------|------|-------|-------------|--|-----------|-----------------|-----------------|----------------|----------------|--|
| 393   | 445     | II  | Cecum      | 6.0  | T3    | G2          | Cecum, invades through muscularis propria to involve subserosal adipose tissue but not serosa. | Neg       | 0/21            | N0              | Neg            | M0             |  |
| 413   | 465     | IV  | Cecum      | 4.8  | T3    | G2          | Invasive through muscularis to involve periserosal fat; abutting ileocecal junction.           | Neg       | 0/7             | N0              | Pos - Liver    | M1             | redagnosis of oophorectomy path to metastatic colon cancer.                        |
| 505   | 383     | IV  |            | 7.5  | T3    | G2          | Invasion through muscularis propria involving pericolic adipose, serosal surface uninvolved    | Pos       | 2/17            | N1              | Pos - Liver    | M1             | Anatomical location of primary not notated in report. Evidence of chronic colitis. |
| 517   | 395     | IV  | Sigmoid    | 3    | T3    | G2          | penetrates muscularis propria, involves pericolic fat.   | Pos       | 6/6             | N2              | Neg            | M0             | No mention of distant met in report  |

Table 6

| Pt ID | Path ID | Grp | Anatom Loc      | Size | Grade | Histo Grade | Local Invasion  | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc | Dist Met Grade | Comment  |
|-------|---------|-----|-----------------|------|-------|-------------|---|-----------|-----------------|-----------------|----------------|----------------|--|
| 534   | 553     | II  | Ascending colon | 12   | T3    | G3          | Invasion through the muscularis propria involving pericolic fat. Serosa free of tumor.      | Neg       | 0/8             | N0              | Neg            | M0             | Omentum with fibrosis and fat necrosis. Small bowel with acute and chronic serositis, focal abscess and adhesions. |
| 546   | 565     | IV  | Ascending colon | 5.5  | T3    | G2          | Invasion through muscularis propria extensively through submucosal and extending to serosa. | Pos       | 6/12            | N2              | Pos - Liver    | M1             |  |
| 577   | 596     | II  | Cecum           | 11.5 | T3    | G2          | Invasion through the bowel wall, into suberosal adipose. Serosal surface free of tumor.     | Neg       | 0/58            | N0              | Neg            | M0             | Appendix dilated and fibrotic, but not involved by tumor   |

## Table 6

| Pt ID | Path ID | Grp | Anatom Loc       | Size | Grade | Histo Grade | Local Invasion  | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc | Dist Met Grade | Comment   |
|-------|---------|-----|------------------|------|-------|-------------|---|-----------|-----------------|-----------------|----------------|----------------|---|
| 695   | 714     | II  | Cecum            | 14.0 | T3    | G2          | extending through bowel wall into serosal fat                             | Neg       | 0/22            | N0              | Neg            | MX             | moderately differentiated adenocarcinoma with mucinous differentiation (% not stated), tubular adenoma and hyperplastic polyps present, |
| 784   | 803     | IV  | Ascending colon  | 3.5  | T3    | G3          | through muscularis propria into pericolic soft tissues                    | Pos       | 5/17            | N2              | Pos - Liver    | M1             | invasive poorly differentiated adenosquamous carcinoma  |
| 786   | 805     | IV  | Descending colon | 9.5  | T3    | G2          | through muscularis propria into pericolic fat, but not at serosal surface | Neg       | 0/12            | N0              | Pos - Liver    | M1             | moderately differentiated invasive adenocarcinoma   |
| 787   | 806     | II  | Rectosigmoid     | 2.5  | T3    | G2-G3       | Invasion of muscularis propria into soft tissue                           | Neg       |                 | N0              | Neg            | MX             | Peritumoral lymphocytic response; 5 LN examined in pericolic fat, no metastases observed.   |
| 789   | 808     | IV  | Cecum            | 5.0  | T3    | G2-G3       | Extending through muscularis propria into pericolic fat                   | Pos       | 5/10            | N2              | Pos - Liver    | M1             | Three fungating lesions examined.   |



Table 6

| Pt ID | Path ID | Grp | Anatom Loc      | Size | Grade | Histo Grade | Local Invasion  | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc | Dist Met Grade | Comment   |
|-------|---------|-----|-----------------|------|-------|-------------|---|-----------|-----------------|-----------------|----------------|----------------|---|
| 790   | 809     | IV  | Rectum          | 6.8  | T3    | G1-G2       | Invading through muscularis propria into perirectal fat         | Pos       | 3/13            | N1              | Pos - Liver    | M1             |   |
| 791   | 810     | IV  | Ascending colon | 5.8  | T3    | G3          | Through the muscularis propria into pericolic fat               | Pos       | 13/25           | N2              | Pos - Liver    | M1             | poorly differentiated invasive colonic adenocarcinoma <sup>a</sup>  |
| 888   | 908     | IV  | Ascending colon | 2.0  | T2    | G1          | Into muscularis propria   | Pos       | 3/21            | N0              | Pos - Liver    | M1             | well to moderately differentiated adenocarcinoma as; this patient has tumors of the ascending colon and the sigmoid colon |
| 889   | 909     | IV  | Cecum           | 4.8  | T3    | G2          | Through muscularis propria int subserosal tissue                | Pos       | 1/4             | N1              | Pos - Liver    | M1             | moderately differentiated adenocarcinoma <sup>a</sup>   |
| 890   | 910     | IV  | Ascending colon |      | T3    | G2          | Through muscularis propria into subserosa.                      | Pos       | 11/15           | N2              | Pos - Liver    | M1             |   |
| 891   | 911     | IV  | Rectum          | 5.2  | T3    | G2          | Invasion through muscularis propria into perirectal soft tissue | Pos       | 4/15            | N2              | Pos - Liver    | M1             | Perineural invasion present.  |

Table 6

| Pt ID | Path ID | Grp | Anatom Loc       | Size | Grade | Histo Grade | Local Invasion   | Lymph Met | Lymph Met Incid | Reg Lymph Grade | Dist Met & Loc                            | Dist Met Grade | Comment  |
|-------|---------|-----|------------------|------|-------|-------------|--|-----------|-----------------|-----------------|---|----------------|--|
| 892   | 912     | IV  | Sigmoid          | 5.0  | T3    | G2          | Invasion into pericolic sort tissue. Tumor focally invading skeletal muscle attached to colon. | Pos       | 1/28            | N1              | Pos - Liver, left and right lobe, omentum | M1             | Perineural invasion present, extensive. Patient with a history of colon cancer.            |
| 893   | 913     | IV  | Transverse colon | 6.0  | T3    | G2-G3       | Through muscularis propria into pericolic fat  | Pos       | 14/17           | N2              | Pos - Liver                               | M1             | Perineural invasion focally present. Omentum mass, but resection with no tumor identified. |
| 989   | 1009    | IV  | Sigmoid          | 6.0  | T3    | G2          | Invasion through colon wall and focally involving subserosal tissue.                           | Pos       | 1/7             | N1              | Pos - Liver                               | M1             | Primary adenocarcinoma arising from tubulovillous adenoma.                                 |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 6         | 43971  | 0.0           | 75.0             | 8.0                  |
| 31        | 40453  | 0.0           | 42.9             | 7.0                  |
| 40        | 40457  | 0.0           | 71.4             | 7.0                  |
| 44        | 46308  | 0.0           | 50.0             | 8.0                  |
| 50        | 45610  | 0.0           | 62.5             | 8.0                  |
| 70        | 42816  | 0.0           | 50.0             | 8.0                  |
| 72        | 44673  | 0.0           | 50.0             | 8.0                  |
| 74        | 42422  | 0.0           | 37.5             | 8.0                  |
| 77        | 43983  | 0.0           | 37.5             | 8.0                  |
| 81        | 44679  | 0.0           | 50.0             | 8.0                  |
| 84        | 42418  | 0.0           | 37.5             | 8.0                  |
| 133       | 39755  | 0.0           | 42.9             | 7.0                  |
| 139       | 44916  | 0.0           | 50.0             | 8.0                  |
| 147       | 45618  | 0.0           | 37.5             | 8.0                  |
| 149       | 44926  | 0.0           | 50.0             | 8.0                  |
| 152       | 44216  | 0.0           | 37.5             | 8.0                  |
| 153       | 38367  | 0.0           | 42.9             | 7.0                  |
| 158       | 38357  | 0.0           | 57.1             | 7.0                  |
| 161       | 41869  | 0.0           | 42.9             | 7.0                  |
| 162       | 43508  | 0.0           | 37.5             | 8.0                  |
| 164       | 38365  | 0.0           | 57.1             | 7.0                  |
| 166       | 39069  | 0.0           | 42.9             | 7.0                  |
| 171       | 39061  | 0.0           | 57.1             | 7.0                  |
| 180       | 39767  | 0.0           | 42.9             | 7.0                  |
| 184       | 43881  | 0.0           | 37.5             | 8.0                  |
| 186       | 43873  | 0.0           | 37.5             | 8.0                  |
| 195       | 39769  | 0.0           | 57.1             | 7.0                  |
| 196       | 39775  | 0.0           | 57.1             | 7.0                  |
| 197       | 46330  | 0.0           | 37.5             | 8.0                  |
| 198       | 42471  | 0.0           | 37.5             | 8.0                  |
| 200       | 41173  | 0.0           | 42.9             | 7.0                  |
| 202       | 42479  | 0.0           | 50.0             | 8.0                  |
| 216       | 39621  | 0.0           | 42.9             | 7.0                  |
| 217       | 46007  | 0.0           | 50.0             | 8.0                  |
| 218       | 46015  | 0.0           | 62.5             | 8.0                  |
| 225       | 45301  | 0.0           | 37.5             | 8.0                  |
| 228       | 45303  | 0.0           | 37.5             | 8.0                  |
| 250       | 41033  | 0.0           | 57.1             | 7.0                  |
| 260       | 41035  | 0.0           | 57.1             | 7.0                  |
| 268       | 41027  | 0.0           | 42.9             | 7.0                  |
| 274       | 41737  | 0.0           | 42.9             | 7.0                  |
| 301       | 39647  | 0.0           | 42.9             | 7.0                  |
| 307       | 38943  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 309       | 38939  | 0.0           | 42.9             | 7.0                  |
| 315       | 44939  | 0.0           | 37.5             | 8.0                  |
| 324       | 42827  | 0.0           | 37.5             | 8.0                  |
| 326       | 38231  | 0.0           | 42.9             | 7.0                  |
| 334       | 42819  | 0.0           | 37.5             | 8.0                  |
| 352       | 43521  | 0.0           | 62.5             | 8.0                  |
| 358       | 45633  | 0.0           | 50.0             | 8.0                  |
| 364       | 44931  | 0.0           | 50.0             | 8.0                  |
| 365       | 45635  | 0.0           | 50.0             | 8.0                  |
| 366       | 46345  | 0.0           | 37.5             | 8.0                  |
| 390       | 44947  | 0.0           | 50.0             | 8.0                  |
| 391       | 44247  | 0.0           | 50.0             | 8.0                  |
| 403       | 43501  | 0.0           | 37.5             | 8.0                  |
| 406       | 43489  | 0.0           | 50.0             | 8.0                  |
| 407       | 44951  | 0.0           | 37.5             | 8.0                  |
| 413       | 41755  | 0.0           | 42.9             | 7.0                  |
| 420       | 43541  | 0.0           | 37.5             | 8.0                  |
| 424       | 44953  | 0.0           | 50.0             | 8.0                  |
| 426       | 46365  | 0.0           | 62.5             | 8.0                  |
| 432       | 44909  | 0.0           | 50.0             | 8.0                  |
| 435       | 38210  | 0.0           | 42.9             | 7.0                  |
| 443       | 38928  | 0.0           | 42.9             | 7.0                  |
| 444       | 44911  | 0.0           | 50.0             | 8.0                  |
| 446       | 46361  | 0.0           | 50.0             | 8.0                  |
| 450       | 39632  | 0.0           | 42.9             | 7.0                  |
| 452       | 39620  | 0.0           | 42.9             | 7.0                  |
| 455       | 46363  | 0.0           | 62.5             | 8.0                  |
| 458       | 41736  | 0.0           | 57.1             | 7.0                  |
| 464       | 38944  | 0.0           | 42.9             | 7.0                  |
| 467       | 45605  | 0.0           | 62.5             | 8.0                  |
| 468       | 45609  | 0.0           | 100.0            | 8.0                  |
| 471       | 38228  | 0.0           | 57.1             | 7.0                  |
| 472       | 41740  | 0.0           | 42.9             | 7.0                  |
| 476       | 41032  | 0.0           | 42.9             | 7.0                  |
| 480       | 39638  | 0.0           | 57.1             | 7.0                  |
| 482       | 41760  | 0.0           | 42.9             | 7.0                  |
| 490       | 41754  | 0.0           | 71.4             | 7.0                  |
| 496       | 39980  | 0.0           | 57.1             | 7.0                  |
| 497       | 46315  | 0.0           | 37.5             | 8.0                  |
| 507       | 40674  | 0.0           | 42.9             | 7.0                  |
| 509       | 38566  | 0.0           | 57.1             | 7.0                  |
| 519       | 38590  | 0.0           | 42.9             | 7.0                  |
| 539       | 42813  | 0.0           | 37.5             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 554       | 43515  | 0.0           | 50.0             | 8.0                  |
| 558       | 41400  | 0.0           | 42.9             | 7.0                  |
| 560       | 40702  | 0.0           | 42.9             | 7.0                  |
| 563       | 40000  | 0.0           | 42.9             | 7.0                  |
| 573       | 38185  | 0.0           | 42.9             | 7.0                  |
| 582       | 39587  | 0.0           | 42.9             | 7.0                  |
| 587       | 44925  | 0.0           | 50.0             | 8.0                  |
| 592       | 39597  | 0.0           | 57.1             | 7.0                  |
| 593       | 39593  | 0.0           | 42.9             | 7.0                  |
| 603       | 38893  | 0.0           | 42.9             | 7.0                  |
| 606       | 42842  | 0.0           | 62.5             | 8.0                  |
| 607       | 43540  | 0.0           | 50.0             | 8.0                  |
| 611       | 42840  | 0.0           | 50.0             | 8.0                  |
| 614       | 43548  | 0.0           | 37.5             | 8.0                  |
| 617       | 43538  | 0.0           | 50.0             | 8.0                  |
| 618       | 46340  | 0.0           | 37.5             | 8.0                  |
| 644       | 39586  | 0.0           | 42.9             | 7.0                  |
| 651       | 45656  | 0.0           | 37.5             | 8.0                  |
| 654       | 44254  | 0.0           | 50.0             | 8.0                  |
| 655       | 45652  | 0.0           | 37.5             | 8.0                  |
| 666       | 46285  | 0.0           | 37.5             | 8.0                  |
| 667       | 40290  | 0.0           | 42.9             | 7.0                  |
| 668       | 40304  | 0.0           | 42.9             | 7.0                  |
| 680       | 39592  | 0.0           | 42.9             | 7.0                  |
| 682       | 44950  | 0.0           | 37.5             | 8.0                  |
| 691       | 45571  | 0.0           | 37.5             | 8.0                  |
| 702       | 45654  | 0.0           | 37.5             | 8.0                  |
| 703       | 45660  | 0.0           | 37.5             | 8.0                  |
| 705       | 40292  | 0.0           | 42.9             | 7.0                  |
| 711       | 40294  | 0.0           | 42.9             | 7.0                  |
| 722       | 46364  | 0.0           | 37.5             | 8.0                  |
| 724       | 38892  | 0.0           | 42.9             | 7.0                  |
| 733       | 40998  | 0.0           | 57.1             | 7.0                  |
| 736       | 40996  | 0.0           | 57.1             | 7.0                  |
| 738       | 41712  | 0.0           | 42.9             | 7.0                  |
| 757       | 38196  | 0.0           | 42.9             | 7.0                  |
| 773       | 44881  | 0.0           | 37.5             | 8.0                  |
| 776       | 39610  | 0.0           | 42.9             | 7.0                  |
| 790       | 41016  | 0.0           | 42.9             | 7.0                  |
| 793       | 39942  | 0.0           | 42.9             | 7.0                  |
| 795       | 41718  | 0.0           | 42.9             | 7.0                  |
| 798       | 39938  | 0.0           | 42.9             | 7.0                  |
| 801       | 46289  | 0.0           | 37.5             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 804       | 41024  | 0.0           | 42.9             | 7.0                  |
| 807       | 38536  | 0.0           | 71.4             | 7.0                  |
| 810       | 39948  | 0.0           | 42.9             | 7.0                  |
| 816       | 39236  | 0.0           | 71.4             | 7.0                  |
| 818       | 38540  | 0.0           | 42.9             | 7.0                  |
| 820       | 41720  | 0.0           | 42.9             | 7.0                  |
| 821       | 41728  | 0.0           | 42.9             | 7.0                  |
| 831       | 46293  | 0.0           | 37.5             | 8.0                  |
| 843       | 41358  | 0.0           | 71.4             | 7.0                  |
| 846       | 39954  | 0.0           | 57.1             | 7.0                  |
| 850       | 41360  | 0.0           | 42.9             | 7.0                  |
| 864       | 38550  | 0.0           | 42.9             | 7.0                  |
| 866       | 38409  | 0.0           | 31.7             | 41.0                 |
| 868       | 40652  | 0.0           | 42.9             | 7.0                  |
| 881       | 42070  | 0.0           | 57.1             | 7.0                  |
| 883       | 42072  | 0.0           | 57.1             | 7.0                  |
| 884       | 42074  | 0.0           | 42.9             | 7.0                  |
| 886       | 40658  | 0.0           | 42.9             | 7.0                  |
| 889       | 41372  | 0.0           | 42.9             | 7.0                  |
| 895       | 40670  | 0.0           | 42.9             | 7.0                  |
| 905       | 38147  | 0.0           | 42.9             | 7.0                  |
| 915       | 39563  | 0.0           | 42.9             | 7.0                  |
| 916       | 38863  | 0.0           | 42.9             | 7.0                  |
| 918       | 38859  | 0.0           | 42.9             | 7.0                  |
| 937       | 40346  | 0.0           | 42.9             | 7.0                  |
| 941       | 41046  | 0.0           | 42.9             | 7.0                  |
| 945       | 45605  | 0.0           | 62.5             | 8.0                  |
| 946       | 40326  | 0.0           | 71.4             | 7.0                  |
| 948       | 40328  | 0.0           | 42.9             | 7.0                  |
| 950       | 41032  | 0.0           | 42.9             | 7.0                  |
| 955       | 40342  | 0.0           | 42.9             | 7.0                  |
| 960       | 41742  | 0.0           | 42.9             | 7.0                  |
| 962       | 41056  | 0.0           | 42.9             | 7.0                  |
| 972       | 43215  | 0.0           | 50.0             | 8.0                  |
| 974       | 43203  | 0.0           | 37.5             | 8.0                  |
| 975       | 42497  | 0.0           | 37.5             | 8.0                  |
| 981       | 42505  | 0.0           | 62.5             | 8.0                  |
| 984       | 43209  | 0.0           | 50.0             | 8.0                  |
| 985       | 38431  | 0.0           | 57.1             | 7.0                  |
| 986       | 24379  | 0.0           | 36.6             | 41.0                 |
| 989       | 43909  | 0.0           | 100.0            | 8.0                  |
| 991       | 41667  | 0.0           | 42.9             | 7.0                  |
| 992       | 40985  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 996       | 38873  | 0.0           | 42.9             | 7.0                  |
| 998       | 38875  | 0.0           | 42.9             | 7.0                  |
| 999       | 40977  | 0.0           | 42.9             | 7.0                  |
| 1001      | 38169  | 0.0           | 42.9             | 7.0                  |
| 1005      | 40987  | 0.0           | 42.9             | 7.0                  |
| 1006      | 40261  | 0.0           | 42.9             | 7.0                  |
| 1010      | 39809  | 0.0           | 42.9             | 7.0                  |
| 1015      | 40973  | 0.0           | 42.9             | 7.0                  |
| 1016      | 39579  | 0.0           | 42.9             | 7.0                  |
| 1018      | 40965  | 0.0           | 42.9             | 7.0                  |
| 1024      | 40263  | 0.0           | 42.9             | 7.0                  |
| 1026      | 39811  | 0.0           | 57.1             | 7.0                  |
| 1028      | 40513  | 0.0           | 57.1             | 7.0                  |
| 1031      | 39821  | 0.0           | 42.9             | 7.0                  |
| 1032      | 38871  | 0.0           | 42.9             | 7.0                  |
| 1038      | 38175  | 0.0           | 42.9             | 7.0                  |
| 1053      | 40267  | 0.0           | 42.9             | 7.0                  |
| 1054      | 40273  | 0.0           | 42.9             | 7.0                  |
| 1057      | 40525  | 0.0           | 42.9             | 7.0                  |
| 1064      | 41685  | 0.0           | 42.9             | 7.0                  |
| 1066      | 40991  | 0.0           | 42.9             | 7.0                  |
| 1067      | 41217  | 0.0           | 71.4             | 7.0                  |
| 1072      | 39907  | 0.0           | 57.1             | 7.0                  |
| 1076      | 41221  | 0.0           | 42.9             | 7.0                  |
| 1085      | 42027  | 0.0           | 42.9             | 7.0                  |
| 1106      | 41227  | 0.0           | 42.9             | 7.0                  |
| 1112      | 41923  | 0.0           | 71.4             | 7.0                  |
| 1114      | 41223  | 0.0           | 42.9             | 7.0                  |
| 1124      | 38503  | 0.0           | 42.9             | 7.0                  |
| 1130      | 41933  | 0.0           | 42.9             | 7.0                  |
| 1132      | 40623  | 0.0           | 42.9             | 7.0                  |
| 1135      | 38527  | 0.0           | 42.9             | 7.0                  |
| 1138      | 39905  | 0.0           | 42.9             | 7.0                  |
| 1141      | 40613  | 0.0           | 42.9             | 7.0                  |
| 1142      | 40615  | 0.0           | 42.9             | 7.0                  |
| 1146      | 39925  | 0.0           | 42.9             | 7.0                  |
| 1147      | 41333  | 0.0           | 42.9             | 7.0                  |
| 1152      | 40627  | 0.0           | 42.9             | 7.0                  |
| 1153      | 41339  | 0.0           | 42.9             | 7.0                  |
| 1157      | 39933  | 0.0           | 42.9             | 7.0                  |
| 1159      | 40629  | 0.0           | 42.9             | 7.0                  |
| 1166      | 42045  | 0.0           | 42.9             | 7.0                  |
| 1167      | 39921  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 1170      | 40637  | 0.0           | 71.4             | 7.0                  |
| 1181      | 42035  | 0.0           | 42.9             | 7.0                  |
| 1186      | 43931  | 0.0           | 37.5             | 8.0                  |
| 1189      | 46029  | 0.0           | 37.5             | 8.0                  |
| 1193      | 42523  | 0.0           | 37.5             | 8.0                  |
| 1199      | 39829  | 0.0           | 42.9             | 7.0                  |
| 1203      | 43923  | 0.0           | 62.5             | 8.0                  |
| 1206      | 43229  | 0.0           | 50.0             | 8.0                  |
| 1208      | 44629  | 0.0           | 37.5             | 8.0                  |
| 1220      | 43219  | 0.0           | 50.0             | 8.0                  |
| 1222      | 39835  | 0.0           | 100.0            | 7.0                  |
| 1231      | 40529  | 0.0           | 100.0            | 7.0                  |
| 1234      | 43921  | 0.0           | 37.5             | 8.0                  |
| 1238      | 45319  | 0.0           | 50.0             | 8.0                  |
| 1241      | 45313  | 0.0           | 37.5             | 8.0                  |
| 1245      | 44627  | 0.0           | 37.5             | 8.0                  |
| 1246      | 44631  | 0.0           | 37.5             | 8.0                  |
| 1250      | 40531  | 0.0           | 42.9             | 7.0                  |
| 1255      | 46035  | 0.0           | 62.5             | 8.0                  |
| 1270      | 41233  | 0.0           | 85.7             | 7.0                  |
| 1274      | 40537  | 0.0           | 42.9             | 7.0                  |
| 1280      | 44637  | 0.0           | 37.5             | 8.0                  |
| 1281      | 45335  | 0.0           | 37.5             | 8.0                  |
| 1290      | 40535  | 0.0           | 57.1             | 7.0                  |
| 1292      | 41241  | 0.0           | 42.9             | 7.0                  |
| 1293      | 41943  | 0.0           | 42.9             | 7.0                  |
| 1311      | 41947  | 0.0           | 42.9             | 7.0                  |
| 1382      | 38765  | 0.0           | 57.1             | 7.0                  |
| 1392      | 39467  | 0.0           | 57.1             | 7.0                  |
| 1398      | 42861  | 0.0           | 62.5             | 8.0                  |
| 1399      | 43559  | 0.0           | 37.5             | 8.0                  |
| 1401      | 38146  | 0.0           | 37.5             | 8.0                  |
| 1402      | 43553  | 0.0           | 37.5             | 8.0                  |
| 1408      | 43555  | 0.0           | 42.9             | 7.0                  |
| 1412      | 39463  | 0.0           | 71.4             | 7.0                  |
| 1413      | 43557  | 0.0           | 42.9             | 7.0                  |
| 1415      | 40175  | 0.0           | 42.9             | 7.0                  |
| 1418      | 40167  | 0.0           | 42.9             | 7.0                  |
| 1422      | 40260  | 0.0           | 37.5             | 8.0                  |
| 1429      | 44965  | 0.0           | 37.5             | 8.0                  |
| 1430      | 44969  | 0.0           | 42.9             | 7.0                  |
| 1432      | 44967  | 0.0           | 42.9             | 7.0                  |
| 1442      | 40165  | 0.0           | 42.9             | 7.0                  |



Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 1446      | 44265  | 0.0           | 42.9             | 7.0                  |
| 1448      | 38162  | 0.0           | 37.5             | 8.0                  |
| 1450      | 41678  | 0.0           | 37.5             | 8.0                  |
| 1452      | 40974  | 0.0           | 37.5             | 8.0                  |
| 1454      | 41674  | 0.0           | 37.5             | 8.0                  |
| 1458      | 46379  | 0.0           | 37.5             | 8.0                  |
| 1463      | 41670  | 0.0           | 37.5             | 8.0                  |
| 1467      | 42871  | 0.0           | 50.0             | 8.0                  |
| 1472      | 38172  | 0.0           | 37.5             | 8.0                  |
| 1474      | 44273  | 0.0           | 50.0             | 8.0                  |
| 1475      | 44277  | 0.0           | 50.0             | 8.0                  |
| 1476      | 43569  | 0.0           | 37.5             | 8.0                  |
| 1483      | 38872  | 0.0           | 50.0             | 8.0                  |
| 1486      | 43577  | 0.0           | 50.0             | 8.0                  |
| 1492      | 39576  | 0.0           | 57.1             | 7.0                  |
| 1493      | 44977  | 0.0           | 50.0             | 8.0                  |
| 1501      | 39580  | 0.0           | 62.5             | 8.0                  |
| 1502      | 45689  | 0.0           | 37.5             | 8.0                  |
| 1503      | 44985  | 0.0           | 50.0             | 8.0                  |
| 1504      | 45681  | 0.0           | 75.0             | 8.0                  |
| 1507      | 39578  | 0.0           | 57.1             | 7.0                  |
| 1508      | 40984  | 0.0           | 50.0             | 8.0                  |
| 1510      | 39584  | 0.0           | 42.9             | 7.0                  |
| 1512      | 40990  | 0.0           | 37.5             | 8.0                  |
| 1514      | 46391  | 0.0           | 37.5             | 8.0                  |
| 1516      | 41682  | 0.0           | 42.9             | 7.0                  |
| 1526      | 38769  | 0.0           | 42.9             | 7.0                  |
| 1530      | 44612  | 0.0           | 37.5             | 8.0                  |
| 1532      | 44622  | 0.0           | 37.5             | 8.0                  |
| 1548      | 39473  | 0.0           | 57.1             | 7.0                  |
| 1550      | 42281  | 0.0           | 42.9             | 7.0                  |
| 1553      | 45320  | 0.0           | 37.5             | 8.0                  |
| 1554      | 39479  | 0.0           | 42.9             | 7.0                  |
| 1560      | 42287  | 0.0           | 42.9             | 7.0                  |
| 1561      | 45314  | 0.0           | 37.5             | 8.0                  |
| 1562      | 45326  | 0.0           | 37.5             | 8.0                  |
| 1567      | 42273  | 0.0           | 42.9             | 7.0                  |
| 1568      | 43210  | 0.0           | 37.5             | 8.0                  |
| 1573      | 43910  | 0.0           | 37.5             | 8.0                  |
| 1575      | 42279  | 0.0           | 42.9             | 7.0                  |
| 1584      | 46034  | 0.0           | 37.5             | 8.0                  |
| 1585      | 43934  | 0.0           | 50.0             | 8.0                  |
| 1586      | 43936  | 0.0           | 50.0             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 1587      | 44632  | 0.0           | 50.0             | 8.0                  |
| 1588      | 43222  | 0.0           | 50.0             | 8.0                  |
| 1589      | 40187  | 0.0           | 42.9             | 7.0                  |
| 1590      | 44626  | 0.0           | 50.0             | 8.0                  |
| 1597      | 44640  | 0.0           | 50.0             | 8.0                  |
| 1599      | 43232  | 0.0           | 37.5             | 8.0                  |
| 1601      | 43930  | 0.0           | 37.5             | 8.0                  |
| 1603      | 44628  | 0.0           | 37.5             | 8.0                  |
| 1609      | 44638  | 0.0           | 37.5             | 8.0                  |
| 1610      | 45332  | 0.0           | 50.0             | 8.0                  |
| 1611      | 46042  | 0.0           | 37.5             | 8.0                  |
| 1613      | 43228  | 0.0           | 37.5             | 8.0                  |
| 1615      | 43932  | 0.0           | 37.5             | 8.0                  |
| 1619      | 40183  | 0.0           | 57.1             | 7.0                  |
| 1623      | 44260  | 0.0           | 37.5             | 8.0                  |
| 1628      | 43562  | 0.0           | 62.5             | 8.0                  |
| 1632      | 43564  | 0.0           | 37.5             | 8.0                  |
| 1634      | 45666  | 0.0           | 50.0             | 8.0                  |
| 1636      | 44968  | 0.0           | 37.5             | 8.0                  |
| 1638      | 42852  | 0.0           | 37.5             | 8.0                  |
| 1642      | 44974  | 0.0           | 50.0             | 8.0                  |
| 1645      | 41587  | 0.0           | 42.9             | 7.0                  |
| 1646      | 44266  | 0.0           | 37.5             | 8.0                  |
| 1647      | 44268  | 0.0           | 37.5             | 8.0                  |
| 1648      | 44962  | 0.0           | 37.5             | 8.0                  |
| 1653      | 44972  | 0.0           | 37.5             | 8.0                  |
| 1654      | 45668  | 0.0           | 50.0             | 8.0                  |
| 1662      | 41593  | 0.0           | 42.9             | 7.0                  |
| 1664      | 45676  | 0.0           | 50.0             | 8.0                  |
| 1667      | 42866  | 0.0           | 62.5             | 8.0                  |
| 1669      | 44274  | 0.0           | 37.5             | 8.0                  |
| 1673      | 42874  | 0.0           | 50.0             | 8.0                  |
| 1675      | 42876  | 0.0           | 37.5             | 8.0                  |
| 1679      | 42289  | 0.0           | 57.1             | 7.0                  |
| 1681      | 42880  | 0.0           | 37.5             | 8.0                  |
| 1682      | 43580  | 0.0           | 50.0             | 8.0                  |
| 1686      | 46384  | 0.0           | 37.5             | 8.0                  |
| 1689      | 45682  | 0.0           | 37.5             | 8.0                  |
| 1698      | 46396  | 0.0           | 50.0             | 8.0                  |
| 1703      | 38406  | 0.0           | 57.1             | 7.0                  |
| 1705      | 44282  | 0.0           | 37.5             | 8.0                  |
| 1706      | 46400  | 0.0           | 37.5             | 8.0                  |
| 1717      | 46388  | 0.0           | 37.5             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 1722      | 38416  | 0.0           | 42.9             | 7.0                  |
| 1727      | 42301  | 0.0           | 42.9             | 7.0                  |
| 1728      | 44978  | 0.0           | 37.5             | 8.0                  |
| 1729      | 42543  | 0.0           | 37.5             | 8.0                  |
| 1732      | 42535  | 0.0           | 37.5             | 8.0                  |
| 1733      | 45684  | 0.0           | 50.0             | 8.0                  |
| 1737      | 44990  | 0.0           | 50.0             | 8.0                  |
| 1738      | 45686  | 0.0           | 62.5             | 8.0                  |
| 1739      | 46390  | 0.0           | 37.5             | 8.0                  |
| 1740      | 42531  | 0.0           | 50.0             | 8.0                  |
| 1746      | 43243  | 0.0           | 37.5             | 8.0                  |
| 1747      | 43947  | 0.0           | 50.0             | 8.0                  |
| 1749      | 46055  | 0.0           | 50.0             | 8.0                  |
| 1753      | 44651  | 0.0           | 37.5             | 8.0                  |
| 1756      | 45347  | 0.0           | 37.5             | 8.0                  |
| 1757      | 42547  | 0.0           | 37.5             | 8.0                  |
| 1758      | 39816  | 0.0           | 42.9             | 7.0                  |
| 1760      | 44643  | 0.0           | 50.0             | 8.0                  |
| 1763      | 42555  | 0.0           | 37.5             | 8.0                  |
| 1764      | 39114  | 0.0           | 57.1             | 7.0                  |
| 1770      | 43945  | 0.0           | 37.5             | 8.0                  |
| 1771      | 44647  | 0.0           | 37.5             | 8.0                  |
| 1776      | 45359  | 0.0           | 37.5             | 8.0                  |
| 1777      | 42551  | 0.0           | 50.0             | 8.0                  |
| 1781      | 46049  | 0.0           | 37.5             | 8.0                  |
| 1785      | 42545  | 0.0           | 37.5             | 8.0                  |
| 1787      | 43261  | 0.0           | 37.5             | 8.0                  |
| 1788      | 44657  | 0.0           | 50.0             | 8.0                  |
| 1793      | 43249  | 0.0           | 37.5             | 8.0                  |
| 1794      | 43255  | 0.0           | 37.5             | 8.0                  |
| 1796      | 43959  | 0.0           | 50.0             | 8.0                  |
| 1797      | 40524  | 0.0           | 42.9             | 7.0                  |
| 1801      | 40526  | 0.0           | 42.9             | 7.0                  |
| 1808      | 43961  | 0.0           | 50.0             | 8.0                  |
| 1814      | 44661  | 0.0           | 50.0             | 8.0                  |
| 1816      | 40520  | 0.0           | 42.9             | 7.0                  |
| 1819      | 46075  | 0.0           | 50.0             | 8.0                  |
| 1821      | 46079  | 0.0           | 50.0             | 8.0                  |
| 1822      | 45375  | 0.0           | 37.5             | 8.0                  |
| 1823      | 41222  | 0.0           | 42.9             | 7.0                  |
| 1826      | 45367  | 0.0           | 37.5             | 8.0                  |
| 1827      | 46067  | 0.0           | 37.5             | 8.0                  |
| 1831      | 41224  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 1834      | 41230  | 0.0           | 57.1             | 7.0                  |
| 1836      | 39204  | 0.0           | 42.9             | 7.0                  |
| 1845      | 38504  | 0.0           | 42.9             | 7.0                  |
| 1850      | 40612  | 0.0           | 42.9             | 7.0                  |
| 1851      | 40616  | 0.0           | 42.9             | 7.0                  |
| 1854      | 40614  | 0.0           | 42.9             | 7.0                  |
| 1855      | 40624  | 0.0           | 42.9             | 7.0                  |
| 1859      | 39912  | 0.0           | 42.9             | 7.0                  |
| 1861      | 39918  | 0.0           | 42.9             | 7.0                  |
| 1868      | 39906  | 0.0           | 42.9             | 7.0                  |
| 1870      | 38528  | 0.0           | 42.9             | 7.0                  |
| 1875      | 39226  | 0.0           | 42.9             | 7.0                  |
| 1885      | 38514  | 0.0           | 42.9             | 7.0                  |
| 1888      | 38522  | 0.0           | 42.9             | 7.0                  |
| 1891      | 39230  | 0.0           | 42.9             | 7.0                  |
| 1892      | 39922  | 0.0           | 42.9             | 7.0                  |
| 1898      | 39924  | 0.0           | 42.9             | 7.0                  |
| 1906      | 39936  | 0.0           | 42.9             | 7.0                  |
| 1907      | 40626  | 0.0           | 42.9             | 7.0                  |
| 1913      | 41240  | 0.0           | 57.1             | 7.0                  |
| 1916      | 40225  | 0.0           | 42.9             | 7.0                  |
| 1922      | 41641  | 0.0           | 42.9             | 7.0                  |
| 1927      | 42036  | 0.0           | 42.9             | 7.0                  |
| 1929      | 41938  | 0.0           | 42.9             | 7.0                  |
| 1932      | 40235  | 0.0           | 42.9             | 7.0                  |
| 1935      | 38117  | 0.0           | 42.9             | 7.0                  |
| 1944      | 40929  | 0.0           | 42.9             | 7.0                  |
| 1946      | 41952  | 0.0           | 42.9             | 7.0                  |
| 1949      | 39527  | 0.0           | 57.1             | 7.0                  |
| 1950      | 39533  | 0.0           | 42.9             | 7.0                  |
| 1954      | 41944  | 0.0           | 42.9             | 7.0                  |
| 1957      | 42046  | 0.0           | 42.9             | 7.0                  |
| 1963      | 41342  | 0.0           | 42.9             | 7.0                  |
| 1964      | 39535  | 0.0           | 42.9             | 7.0                  |
| 1969      | 40544  | 0.0           | 42.9             | 7.0                  |
| 1970      | 38821  | 0.0           | 42.9             | 7.0                  |
| 1971      | 40231  | 0.0           | 42.9             | 7.0                  |
| 1972      | 41647  | 0.0           | 42.9             | 7.0                  |
| 1973      | 41344  | 0.0           | 42.9             | 7.0                  |
| 1977      | 38823  | 0.0           | 42.9             | 7.0                  |
| 1980      | 40943  | 0.0           | 42.9             | 7.0                  |
| 1988      | 38831  | 0.0           | 42.9             | 7.0                  |
| 1990      | 38127  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 1992      | 42044  | 0.0           | 42.9             | 7.0                  |
| 2007      | 40945  | 0.0           | 42.9             | 7.0                  |
| 2008      | 40953  | 0.0           | 42.9             | 7.0                  |
| 2013      | 38135  | 0.0           | 42.9             | 7.0                  |
| 2015      | 40959  | 0.0           | 42.9             | 7.0                  |
| 2022      | 40249  | 0.0           | 42.9             | 7.0                  |
| 2034      | 39551  | 0.0           | 42.9             | 7.0                  |
| 2036      | 40949  | 0.0           | 42.9             | 7.0                  |
| 2038      | 41651  | 0.0           | 42.9             | 7.0                  |
| 2042      | 38143  | 0.0           | 42.9             | 7.0                  |
| 2043      | 38835  | 0.0           | 42.9             | 7.0                  |
| 2045      | 38843  | 0.0           | 42.9             | 7.0                  |
| 2060      | 41987  | 0.0           | 42.9             | 7.0                  |
| 2068      | 40587  | 0.0           | 42.9             | 7.0                  |
| 2072      | 39875  | 0.0           | 42.9             | 7.0                  |
| 2076      | 40589  | 0.0           | 42.9             | 7.0                  |
| 2077      | 38471  | 0.0           | 42.9             | 7.0                  |
| 2079      | 38483  | 0.0           | 42.9             | 7.0                  |
| 2081      | 41283  | 0.0           | 42.9             | 7.0                  |
| 2120      | 39195  | 0.0           | 42.9             | 7.0                  |
| 2121      | 39891  | 0.0           | 42.9             | 7.0                  |
| 2125      | 39193  | 0.0           | 42.9             | 7.0                  |
| 2130      | 39199  | 0.0           | 42.9             | 7.0                  |
| 2158      | 40593  | 0.0           | 42.9             | 7.0                  |
| 2163      | 40603  | 0.0           | 42.9             | 7.0                  |
| 2177      | 42009  | 0.0           | 42.9             | 7.0                  |
| 2185      | 39526  | 0.0           | 42.9             | 7.0                  |
| 2187      | 39536  | 0.0           | 42.9             | 7.0                  |
| 2193      | 40942  | 0.0           | 42.9             | 7.0                  |
| 2195      | 38120  | 0.0           | 42.9             | 7.0                  |
| 2199      | 40238  | 0.0           | 42.9             | 7.0                  |
| 2202      | 40240  | 0.0           | 42.9             | 7.0                  |
| 2204      | 39522  | 0.0           | 42.9             | 7.0                  |
| 2206      | 39534  | 0.0           | 42.9             | 7.0                  |
| 2208      | 42011  | 0.0           | 42.9             | 7.0                  |
| 2214      | 42013  | 0.0           | 42.9             | 7.0                  |
| 2224      | 38132  | 0.0           | 42.9             | 7.0                  |
| 2229      | 40256  | 0.0           | 42.9             | 7.0                  |
| 2235      | 42343  | 0.0           | 37.5             | 8.0                  |
| 2236      | 43041  | 0.0           | 37.5             | 8.0                  |
| 2237      | 38144  | 0.0           | 42.9             | 7.0                  |
| 2239      | 39548  | 0.0           | 57.1             | 7.0                  |
| 2243      | 38842  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 2247      | 38142  | 0.0           | 42.9             | 7.0                  |
| 2250      | 38138  | 0.0           | 42.9             | 7.0                  |
| 2257      | 39552  | 0.0           | 57.1             | 7.0                  |
| 2263      | 39544  | 0.0           | 42.9             | 7.0                  |
| 2270      | 41650  | 0.0           | 42.9             | 7.0                  |
| 2271      | 40952  | 0.0           | 42.9             | 7.0                  |
| 2272      | 41652  | 0.0           | 42.9             | 7.0                  |
| 2278      | 38470  | 0.0           | 42.9             | 7.0                  |
| 2279      | 40954  | 0.0           | 42.9             | 7.0                  |
| 2288      | 43753  | 0.0           | 50.0             | 8.0                  |
| 2290      | 39176  | 0.0           | 57.1             | 7.0                  |
| 2293      | 39874  | 0.0           | 42.9             | 7.0                  |
| 2294      | 40590  | 0.0           | 42.9             | 7.0                  |
| 2300      | 40592  | 0.0           | 42.9             | 7.0                  |
| 2304      | 41292  | 0.0           | 42.9             | 7.0                  |
| 2312      | 39180  | 0.0           | 42.9             | 7.0                  |
| 2314      | 41294  | 0.0           | 42.9             | 7.0                  |
| 2323      | 39192  | 0.0           | 42.9             | 7.0                  |
| 2326      | 39888  | 0.0           | 42.9             | 7.0                  |
| 2327      | 40584  | 0.0           | 42.9             | 7.0                  |
| 2328      | 41282  | 0.0           | 42.9             | 7.0                  |
| 2329      | 41990  | 0.0           | 42.9             | 7.0                  |
| 2336      | 39184  | 0.0           | 42.9             | 7.0                  |
| 2338      | 44459  | 0.0           | 62.5             | 8.0                  |
| 2340      | 40586  | 0.0           | 42.9             | 7.0                  |
| 2341      | 41992  | 0.0           | 42.9             | 7.0                  |
| 2342      | 44457  | 0.0           | 37.5             | 8.0                  |
| 2345      | 40580  | 0.0           | 42.9             | 7.0                  |
| 2346      | 39186  | 0.0           | 85.7             | 7.0                  |
| 2347      | 43747  | 0.0           | 50.0             | 8.0                  |
| 2349      | 41288  | 0.0           | 42.9             | 7.0                  |
| 2350      | 41986  | 0.0           | 42.9             | 7.0                  |
| 2352      | 38494  | 0.0           | 71.4             | 7.0                  |
| 2353      | 39188  | 0.0           | 85.7             | 7.0                  |
| 2354      | 41996  | 0.0           | 42.9             | 7.0                  |
| 2359      | 40608  | 0.0           | 42.9             | 7.0                  |
| 2364      | 45165  | 0.0           | 50.0             | 8.0                  |
| 2367      | 41312  | 0.0           | 42.9             | 7.0                  |
| 2368      | 39198  | 0.0           | 42.9             | 7.0                  |
| 2370      | 41306  | 0.0           | 42.9             | 7.0                  |
| 2371      | 39904  | 0.0           | 57.1             | 7.0                  |
| 2374      | 45163  | 0.0           | 37.5             | 8.0                  |
| 2376      | 42002  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 2380      | 41310  | 0.0           | 42.9             | 7.0                  |
| 2383      | 39200  | 0.0           | 42.9             | 7.0                  |
| 2386      | 42899  | 0.0           | 50.0             | 8.0                  |
| 2388      | 45869  | 0.0           | 37.5             | 8.0                  |
| 2390      | 42901  | 0.0           | 37.5             | 8.0                  |
| 2393      | 45709  | 0.0           | 62.5             | 8.0                  |
| 2400      | 42893  | 0.0           | 50.0             | 8.0                  |
| 2404      | 43585  | 0.0           | 37.5             | 8.0                  |
| 2408      | 43599  | 0.0           | 50.0             | 8.0                  |
| 2412      | 43587  | 0.0           | 37.5             | 8.0                  |
| 2413      | 44301  | 0.0           | 50.0             | 8.0                  |
| 2414      | 46411  | 0.0           | 37.5             | 8.0                  |
| 2415      | 42909  | 0.0           | 62.5             | 8.0                  |
| 2422      | 42895  | 0.0           | 37.5             | 8.0                  |
| 2423      | 44995  | 0.0           | 37.5             | 8.0                  |
| 2424      | 42911  | 0.0           | 50.0             | 8.0                  |
| 2426      | 45865  | 0.0           | 37.5             | 8.0                  |
| 2429      | 42885  | 0.0           | 37.5             | 8.0                  |
| 2432      | 42887  | 0.0           | 50.0             | 8.0                  |
| 2434      | 45705  | 0.0           | 37.5             | 8.0                  |
| 2439      | 42012  | 0.0           | 42.9             | 7.0                  |
| 2442      | 43593  | 0.0           | 37.5             | 8.0                  |
| 2448      | 42905  | 0.0           | 37.5             | 8.0                  |
| 2449      | 44303  | 0.0           | 50.0             | 8.0                  |
| 2456      | 45697  | 0.0           | 50.0             | 8.0                  |
| 2468      | 44305  | 0.0           | 62.5             | 8.0                  |
| 2469      | 43609  | 0.0           | 37.5             | 8.0                  |
| 2471      | 45009  | 0.0           | 50.0             | 8.0                  |
| 2475      | 44317  | 0.0           | 50.0             | 8.0                  |
| 2476      | 45719  | 0.0           | 37.5             | 8.0                  |
| 2477      | 43761  | 0.0           | 50.0             | 8.0                  |
| 2478      | 46431  | 0.0           | 50.0             | 8.0                  |
| 2480      | 44311  | 0.0           | 62.5             | 8.0                  |
| 2483      | 45017  | 0.0           | 50.0             | 8.0                  |
| 2484      | 46421  | 0.0           | 50.0             | 8.0                  |
| 2485      | 44313  | 0.0           | 50.0             | 8.0                  |
| 2487      | 45019  | 0.0           | 37.5             | 8.0                  |
| 2489      | 46417  | 0.0           | 37.5             | 8.0                  |
| 2491      | 46423  | 0.0           | 37.5             | 8.0                  |
| 2496      | 45713  | 0.0           | 37.5             | 8.0                  |
| 2498      | 46425  | 0.0           | 37.5             | 8.0                  |
| 2500      | 45013  | 0.0           | 37.5             | 8.0                  |
| 2502      | 44319  | 0.0           | 37.5             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 2503      | 45723  | 0.0           | 37.5             | 8.0                  |
| 2504      | 46427  | 0.0           | 37.5             | 8.0                  |
| 2505      | 42534  | 0.0           | 37.5             | 8.0                  |
| 2511      | 43938  | 0.0           | 37.5             | 8.0                  |
| 2516      | 43950  | 0.0           | 37.5             | 8.0                  |
| 2517      | 45360  | 0.0           | 37.5             | 8.0                  |
| 2518      | 43944  | 0.0           | 37.5             | 8.0                  |
| 2524      | 45348  | 0.0           | 37.5             | 8.0                  |
| 2527      | 46052  | 0.0           | 37.5             | 8.0                  |
| 2532      | 43946  | 0.0           | 37.5             | 8.0                  |
| 2534      | 43236  | 0.0           | 37.5             | 8.0                  |
| 2539      | 44650  | 0.0           | 37.5             | 8.0                  |
| 2541      | 43242  | 0.0           | 50.0             | 8.0                  |
| 2544      | 43244  | 0.0           | 50.0             | 8.0                  |
| 2549      | 46056  | 0.0           | 50.0             | 8.0                  |
| 2550      | 42556  | 0.0           | 37.5             | 8.0                  |
| 2551      | 43262  | 0.0           | 50.0             | 8.0                  |
| 2555      | 45169  | 0.0           | 37.5             | 8.0                  |
| 2560      | 42550  | 0.0           | 37.5             | 8.0                  |
| 2563      | 42552  | 0.0           | 37.5             | 8.0                  |
| 2564      | 43966  | 0.0           | 50.0             | 8.0                  |
| 2581      | 43968  | 0.0           | 37.5             | 8.0                  |
| 2582      | 42554  | 0.0           | 50.0             | 8.0                  |
| 2591      | 44660  | 0.0           | 37.5             | 8.0                  |
| 2592      | 45362  | 0.0           | 37.5             | 8.0                  |
| 2596      | 45376  | 0.0           | 62.5             | 8.0                  |
| 2601      | 45364  | 0.0           | 37.5             | 8.0                  |
| 2604      | 45374  | 0.0           | 37.5             | 8.0                  |
| 2605      | 46066  | 0.0           | 37.5             | 8.0                  |
| 2608      | 45368  | 0.0           | 37.5             | 8.0                  |
| 2609      | 46078  | 0.0           | 50.0             | 8.0                  |
| 2613      | 44668  | 0.0           | 50.0             | 8.0                  |
| 2614      | 45370  | 0.0           | 37.5             | 8.0                  |
| 2619      | 43592  | 0.0           | 37.5             | 8.0                  |
| 2620      | 45875  | 0.0           | 37.5             | 8.0                  |
| 2621      | 46068  | 0.0           | 75.0             | 8.0                  |
| 2623      | 42882  | 0.0           | 37.5             | 8.0                  |
| 2629      | 43588  | 0.0           | 37.5             | 8.0                  |
| 2638      | 44296  | 0.0           | 37.5             | 8.0                  |
| 2639      | 43401  | 0.0           | 50.0             | 8.0                  |
| 2641      | 44298  | 0.0           | 37.5             | 8.0                  |
| 2642      | 45710  | 0.0           | 50.0             | 8.0                  |
| 2646      | 45008  | 0.0           | 50.0             | 8.0                  |



Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 2647      | 42910  | 0.0           | 62.5             | 8.0                  |
| 2648      | 43596  | 0.0           | 75.0             | 8.0                  |
| 2649      | 45706  | 0.0           | 37.5             | 8.0                  |
| 2655      | 46410  | 0.0           | 37.5             | 8.0                  |
| 2658      | 44994  | 0.0           | 50.0             | 8.0                  |
| 2662      | 45708  | 0.0           | 50.0             | 8.0                  |
| 2666      | 46416  | 0.0           | 37.5             | 8.0                  |
| 2667      | 42912  | 0.0           | 37.5             | 8.0                  |
| 2671      | 42902  | 0.0           | 37.5             | 8.0                  |
| 2673      | 44300  | 0.0           | 37.5             | 8.0                  |
| 2676      | 42904  | 0.0           | 50.0             | 8.0                  |
| 2677      | 43598  | 0.0           | 50.0             | 8.0                  |
| 2686      | 42906  | 0.0           | 50.0             | 8.0                  |
| 2688      | 42695  | 0.0           | 37.5             | 8.0                  |
| 2689      | 46404  | 0.0           | 37.5             | 8.0                  |
| 2690      | 42898  | 0.0           | 50.0             | 8.0                  |
| 2694      | 45885  | 0.0           | 37.5             | 8.0                  |
| 2703      | 42908  | 0.0           | 37.5             | 8.0                  |
| 2704      | 44292  | 0.0           | 37.5             | 8.0                  |
| 2710      | 46412  | 0.0           | 37.5             | 8.0                  |
| 2711      | 44306  | 0.0           | 37.5             | 8.0                  |
| 2713      | 43614  | 0.0           | 37.5             | 8.0                  |
| 2715      | 43616  | 0.0           | 37.5             | 8.0                  |
| 2718      | 43612  | 0.0           | 50.0             | 8.0                  |
| 2726      | 43606  | 0.0           | 87.5             | 8.0                  |
| 2727      | 43610  | 0.0           | 50.0             | 8.0                  |
| 2729      | 43602  | 0.0           | 37.5             | 8.0                  |
| 2732      | 45714  | 0.0           | 37.5             | 8.0                  |
| 2733      | 43604  | 0.0           | 50.0             | 8.0                  |
| 2739      | 45018  | 0.0           | 50.0             | 8.0                  |
| 2755      | 45718  | 0.0           | 37.5             | 8.0                  |
| 2812      | 46418  | 0.0           | 37.5             | 8.0                  |
| 2885      | 46215  | 0.0           | 37.5             | 8.0                  |
| 2966      | 45529  | 0.0           | 37.5             | 8.0                  |
| 2983      | 46229  | 0.0           | 37.5             | 8.0                  |
| 2984      | 45533  | 0.0           | 50.0             | 8.0                  |
| 3006      | 43756  | 0.0           | 50.0             | 8.0                  |
| 3011      | 43758  | 0.0           | 62.5             | 8.0                  |
| 3082      | 46222  | 0.0           | 37.5             | 8.0                  |
| 3093      | 46212  | 0.0           | 37.5             | 8.0                  |
| 3129      | 42718  | 0.0           | 37.5             | 8.0                  |
| 3145      | 42710  | 0.0           | 37.5             | 8.0                  |
| 3176      | 43424  | 0.0           | 37.5             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 3193      | 44822  | 0.0           | 37.5             | 8.0                  |
| 3211      | 44818  | 0.0           | 50.0             | 8.0                  |
| 3245      | 45860  | 0.0           | 50.0             | 8.0                  |
| 3257      | 45858  | 0.0           | 37.5             | 8.0                  |
| 3268      | 42356  | 0.0           | 37.5             | 8.0                  |
| 3269      | 42364  | 0.0           | 37.5             | 8.0                  |
| 3278      | 45862  | 0.0           | 37.5             | 8.0                  |
| 3296      | 43064  | 0.0           | 37.5             | 8.0                  |
| 3336      | 45170  | 0.0           | 37.5             | 8.0                  |
| 3339      | 43768  | 0.0           | 50.0             | 8.0                  |
| 3356      | 43776  | 0.0           | 50.0             | 8.0                  |
| 3359      | 45176  | 0.0           | 50.0             | 8.0                  |
| 3388      | 42698  | 0.0           | 50.0             | 8.0                  |
| 3393      | 45184  | 0.0           | 37.5             | 8.0                  |
| 3405      | 45878  | 0.0           | 37.5             | 8.0                  |
| 3412      | 45884  | 0.0           | 37.5             | 8.0                  |
| 3438      | 46020  | 0.0           | 37.5             | 8.0                  |
| 3439      | 46032  | 0.0           | 50.0             | 8.0                  |
| 3442      | 46026  | 0.0           | 37.5             | 8.0                  |
| 3443      | 42516  | 0.0           | 50.0             | 8.0                  |
| 3457      | 44117  | 0.0           | 50.0             | 8.0                  |
| 3463      | 42719  | 0.0           | 50.0             | 8.0                  |
| 3514      | 43423  | 0.0           | 50.0             | 8.0                  |
| 3575      | 46233  | 0.0           | 37.5             | 8.0                  |
| 3595      | 43054  | 0.0           | 50.0             | 8.0                  |
| 3596      | 42352  | 0.0           | 37.5             | 8.0                  |
| 3605      | 43746  | 0.0           | 50.0             | 8.0                  |
| 3613      | 42366  | 0.0           | 50.0             | 8.0                  |
| 3650      | 40101  | 0.0           | 42.9             | 7.0                  |
| 3656      | 39407  | 0.0           | 42.9             | 7.0                  |
| 3698      | 38695  | 0.0           | 42.9             | 7.0                  |
| 3702      | 40107  | 0.0           | 42.9             | 7.0                  |
| 3711      | 39401  | 0.0           | 42.9             | 7.0                  |
| 3716      | 39405  | 0.0           | 42.9             | 7.0                  |
| 3723      | 38697  | 0.0           | 42.9             | 7.0                  |
| 3836      | 42213  | 0.0           | 42.9             | 7.0                  |
| 3870      | 38717  | 0.0           | 42.9             | 7.0                  |
| 3881      | 38719  | 0.0           | 42.9             | 7.0                  |
| 3919      | 38707  | 0.0           | 42.9             | 7.0                  |
| 3934      | 38713  | 0.0           | 42.9             | 7.0                  |
| 3955      | 39419  | 0.0           | 42.9             | 7.0                  |
| 4028      | 42274  | 0.0           | 42.9             | 7.0                  |
| 4039      | 38772  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 4041      | 42286  | 0.0           | 42.9             | 7.0                  |
| 4045      | 38770  | 0.0           | 42.9             | 7.0                  |
| 4055      | 42282  | 0.0           | 42.9             | 7.0                  |
| 4059      | 42284  | 0.0           | 42.9             | 7.0                  |
| 4097      | 38774  | 0.0           | 42.9             | 7.0                  |
| 4124      | 40313  | 0.0           | 42.9             | 7.0                  |
| 4131      | 45625  | 0.0           | 50.0             | 8.0                  |
| 4137      | 41005  | 0.0           | 42.9             | 7.0                  |
| 4140      | 38203  | 0.0           | 42.9             | 7.0                  |
| 4145      | 46325  | 0.0           | 37.5             | 8.0                  |
| 4146      | 39611  | 0.0           | 42.9             | 7.0                  |
| 4147      | 40309  | 0.0           | 57.1             | 7.0                  |
| 4153      | 45619  | 0.0           | 37.5             | 8.0                  |
| 4163      | 41697  | 0.0           | 42.9             | 7.0                  |
| 4166      | 38899  | 0.0           | 42.9             | 7.0                  |
| 4170      | 38903  | 0.0           | 42.9             | 7.0                  |
| 4171      | 41003  | 0.0           | 42.9             | 7.0                  |
| 4173      | 40995  | 0.0           | 42.9             | 7.0                  |
| 4175      | 46321  | 0.0           | 37.5             | 8.0                  |
| 4177      | 41017  | 0.0           | 42.9             | 7.0                  |
| 4182      | 42474  | 0.0           | 50.0             | 8.0                  |
| 4195      | 42478  | 0.0           | 37.5             | 8.0                  |
| 4197      | 41015  | 0.0           | 42.9             | 7.0                  |
| 4212      | 41713  | 0.0           | 42.9             | 7.0                  |
| 4214      | 42480  | 0.0           | 37.5             | 8.0                  |
| 4217      | 43886  | 0.0           | 37.5             | 8.0                  |
| 4228      | 43888  | 0.0           | 37.5             | 8.0                  |
| 4240      | 44586  | 0.0           | 37.5             | 8.0                  |
| 4252      | 43188  | 0.0           | 37.5             | 8.0                  |
| 4254      | 45304  | 0.0           | 62.5             | 8.0                  |
| 4263      | 45996  | 0.0           | 37.5             | 8.0                  |
| 4275      | 46016  | 0.0           | 37.5             | 8.0                  |
| 4277      | 43198  | 0.0           | 37.5             | 8.0                  |
| 4279      | 44606  | 0.0           | 50.0             | 8.0                  |
| 4282      | 42496  | 0.0           | 50.0             | 8.0                  |
| 4285      | 43900  | 0.0           | 37.5             | 8.0                  |
| 4286      | 44608  | 0.0           | 37.5             | 8.0                  |
| 4288      | 43902  | 0.0           | 75.0             | 8.0                  |
| 4290      | 46006  | 0.0           | 37.5             | 8.0                  |
| 4293      | 43192  | 0.0           | 37.5             | 8.0                  |
| 4296      | 42490  | 0.0           | 37.5             | 8.0                  |
| 4299      | 43896  | 0.0           | 37.5             | 8.0                  |
| 4305      | 42492  | 0.0           | 37.5             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 4307      | 46008  | 0.0           | 50.0             | 8.0                  |
| 4317      | 39941  | 0.0           | 42.9             | 7.0                  |
| 4324      | 42053  | 0.0           | 42.9             | 7.0                  |
| 4341      | 38541  | 0.0           | 42.9             | 7.0                  |
| 4343      | 42055  | 0.0           | 42.9             | 7.0                  |
| 4350      | 39241  | 0.0           | 42.9             | 7.0                  |
| 4371      | 40647  | 0.0           | 42.9             | 7.0                  |
| 4384      | 41355  | 0.0           | 42.9             | 7.0                  |
| 4386      | 39261  | 0.0           | 42.9             | 7.0                  |
| 4395      | 39967  | 0.0           | 42.9             | 7.0                  |
| 4397      | 38559  | 0.0           | 42.9             | 7.0                  |
| 4400      | 40663  | 0.0           | 42.9             | 7.0                  |
| 4403      | 40669  | 0.0           | 42.9             | 7.0                  |
| 4408      | 39263  | 0.0           | 42.9             | 7.0                  |
| 4421      | 44930  | 0.0           | 37.5             | 8.0                  |
| 4424      | 42071  | 0.0           | 42.9             | 7.0                  |
| 4425      | 45638  | 0.0           | 37.5             | 8.0                  |
| 4428      | 44228  | 0.0           | 37.5             | 8.0                  |
| 4429      | 41371  | 0.0           | 42.9             | 7.0                  |
| 4434      | 45640  | 0.0           | 50.0             | 8.0                  |
| 4435      | 44163  | 0.0           | 37.5             | 8.0                  |
| 4436      | 44171  | 0.0           | 37.5             | 8.0                  |
| 4439      | 42818  | 0.0           | 50.0             | 8.0                  |
| 4440      | 45634  | 0.0           | 50.0             | 8.0                  |
| 4441      | 45644  | 0.0           | 50.0             | 8.0                  |
| 4447      | 43471  | 0.0           | 37.5             | 8.0                  |
| 4448      | 43536  | 0.0           | 62.5             | 8.0                  |
| 4453      | 44944  | 0.0           | 37.5             | 8.0                  |
| 4454      | 45646  | 0.0           | 37.5             | 8.0                  |
| 4457      | 44238  | 0.0           | 37.5             | 8.0                  |
| 4458      | 44936  | 0.0           | 50.0             | 8.0                  |
| 4461      | 44161  | 0.0           | 37.5             | 8.0                  |
| 4469      | 44938  | 0.0           | 50.0             | 8.0                  |
| 4470      | 45636  | 0.0           | 50.0             | 8.0                  |
| 4477      | 44804  | 0.0           | 37.5             | 8.0                  |
| 4483      | 44100  | 0.0           | 50.0             | 8.0                  |
| 4544      | 46230  | 0.0           | 37.5             | 8.0                  |
| 4547      | 45532  | 0.0           | 37.5             | 8.0                  |
| 4557      | 45526  | 0.0           | 50.0             | 8.0                  |
| 4573      | 45536  | 0.0           | 37.5             | 8.0                  |
| 4593      | 41535  | 0.0           | 42.9             | 7.0                  |
| 4594      | 40123  | 0.0           | 57.1             | 7.0                  |
| 4600      | 41525  | 0.0           | 42.9             | 7.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 4611      | 40817  | 0.0           | 42.9             | 7.0                  |
| 4620      | 40821  | 0.0           | 42.9             | 7.0                  |
| 4629      | 41529  | 0.0           | 42.9             | 7.0                  |
| 4632      | 40825  | 0.0           | 42.9             | 7.0                  |
| 4645      | 41527  | 0.0           | 42.9             | 7.0                  |
| 4696      | 41527  | 0.0           | 42.9             | 7.0                  |
| 4718      | 40823  | 0.0           | 42.9             | 7.0                  |
| 4727      | 38758  | 0.0           | 57.1             | 7.0                  |
| 4729      | 42229  | 0.0           | 42.9             | 7.0                  |
| 4743      | 38764  | 0.0           | 42.9             | 7.0                  |
| 4754      | 42235  | 0.0           | 42.9             | 7.0                  |
| 4768      | 42239  | 0.0           | 42.9             | 7.0                  |
| 4835      | 39472  | 0.0           | 42.9             | 7.0                  |
| 4922      | 40868  | 0.0           | 57.1             | 7.0                  |
| 4938      | 40866  | 0.0           | 42.9             | 7.0                  |
| 4950      | 41576  | 0.0           | 42.9             | 7.0                  |
| 4978      | 40870  | 0.0           | 42.9             | 7.0                  |
| 5065      | 39488  | 0.0           | 42.9             | 7.0                  |
| 5117      | 40888  | 0.0           | 42.9             | 7.0                  |
| 5140      | 40886  | 0.0           | 42.9             | 7.0                  |
| 5150      | 40890  | 0.0           | 42.9             | 7.0                  |
| 5165      | 41588  | 0.0           | 42.9             | 7.0                  |
| 5186      | 41596  | 0.0           | 42.9             | 7.0                  |
| 5228      | 42290  | 0.0           | 42.9             | 7.0                  |
| 5252      | 43118  | 0.0           | 50.0             | 8.0                  |
| 5300      | 43114  | 0.0           | 62.5             | 8.0                  |
| 5341      | 45220  | 0.0           | 37.5             | 8.0                  |
| 5360      | 44518  | 0.0           | 37.5             | 8.0                  |
| 5539      | 43120  | 0.0           | 37.5             | 8.0                  |
| 5559      | 43812  | 0.0           | 50.0             | 8.0                  |
| 5596      | 43810  | 0.0           | 50.0             | 8.0                  |
| 5643      | 45224  | 0.0           | 50.0             | 8.0                  |
| 5649      | 45226  | 0.0           | 37.5             | 8.0                  |
| 5665      | 45922  | 0.0           | 37.5             | 8.0                  |
| 5671      | 43265  | 0.0           | 37.5             | 8.0                  |
| 5701      | 42573  | 0.0           | 37.5             | 8.0                  |
| 5724      | 45232  | 0.0           | 37.5             | 8.0                  |
| 5752      | 41161  | 0.0           | 71.4             | 7.0                  |
| 5763      | 41163  | 0.0           | 42.9             | 7.0                  |
| 5812      | 44591  | 0.0           | 50.0             | 8.0                  |
| 5815      | 43189  | 0.0           | 37.5             | 8.0                  |
| 5817      | 45293  | 0.0           | 37.5             | 8.0                  |
| 5818      | 42487  | 0.0           | 37.5             | 8.0                  |

Table 8

| SEQ ID NO | SpotID | T/N Colon >2x | T/N Colon <halfx | T/N Colon Num Ratios |
|-----------|--------|---------------|------------------|----------------------|
| 5821      | 43191  | 0.0           | 37.5             | 8.0                  |
| 5825      | 38917  | 0.0           | 42.9             | 7.0                  |
| 5829      | 38913  | 0.0           | 42.9             | 7.0                  |
| 5836      | 41875  | 0.0           | 42.9             | 7.0                  |
| 5837      | 45987  | 0.0           | 37.5             | 8.0                  |
| 5847      | 45289  | 0.0           | 37.5             | 8.0                  |
| 5848      | 45989  | 0.0           | 50.0             | 8.0                  |
| 5979      | 44537  | 0.0           | 50.0             | 8.0                  |
| 80        | 44681  | 12.5          | 37.5             | 8.0                  |
| 86        | 43981  | 12.5          | 50.0             | 8.0                  |
| 78        | 44675  | 37.5          | 0.0              | 8.0                  |
| 104       | 42428  | 37.5          | 0.0              | 8.0                  |
| 3248      | 45866  | 37.5          | 0.0              | 8.0                  |
| 1853      | 39216  | 42.9          | 0.0              | 7.0                  |
| 2049      | 41657  | 42.9          | 0.0              | 7.0                  |
| 5148      | 40188  | 42.9          | 0.0              | 7.0                  |
| 16        | 44200  | 50.0          | 0.0              | 8.0                  |
| 3619      | 43404  | 50.0          | 0.0              | 8.0                  |
| 600       | 42108  | 57.1          | 0.0              | 7.0                  |
| 4684      | 40125  | 57.1          | 0.0              | 7.0                  |
| 1591      | 44634  | 62.5          | 0.0              | 8.0                  |
| 1518      | 46399  | 71.4          | 0.0              | 7.0                  |
| 1978      | 38827  | 71.4          | 0.0              | 7.0                  |
| 17        | 44202  | 75.0          | 0.0              | 8.0                  |
| 1975      | 41244  | 85.7          | 0.0              | 7.0                  |
| 118       | 43970  | 87.5          | 0.0              | 8.0                  |
| 114       | 43972  | 100.0         | 0.0              | 8.0                  |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00007960D:E09 | ES 168 | 142842    | 1513.A14.gz43_300454 |
| M00007963D:D03 | ES 168 | 142614    | 1513.A15.gz43_300470 |
| M00021925A:H07 | ES 168 | 120049    | 1513.D19.gz43_300537 |
| M00022072A:E12 | ES 168 | 153316    | 1513.E14.gz43_300458 |
| M00022135D:D06 | ES 168 | 145815    | 1513.F09.gz43_300379 |
| M00022255B:F12 | ES 168 | 158321    | 1513.H09.gz43_300381 |
| M00022445D:E12 | ES 168 | 101499    | 1513.J13.gz43_300447 |
| M00022537D:C05 | ES 168 | 168195    | 1513.L10.gz43_300401 |
| M00022622A:G01 | ES 168 | 99011     | 1513.N16.gz43_300499 |
| M00022648C:D08 | ES 168 | 169458    | 1513.O03.gz43_300292 |
| M00022710C:H03 | ES 168 | 171073    | 1513.P18.gz43_300533 |
| M00023406A:G03 | ES 168 | 189993    | 1521.C14.gz43_303619 |
| M00027018B:F01 | ES 168 | 94539     | 1521.F23.gz43_303766 |
| M00027100A:D12 | ES 168 | 220463    | 1521.H05.gz43_303480 |
| M00027103D:B05 | ES 168 | 189073    | 1521.H06.gz43_303496 |
| M00027123D:F02 | ES 168 | 186594    | 1521.H13.gz43_303608 |
| M00027126C:H05 | ES 168 | 222818    | 1521.H14.gz43_303624 |
| M00027219B:G12 | ES 168 | 188309    | 1521.J06.gz43_303498 |
| M00027287B:H10 | ES 168 | 217042    | 1521.K08.gz43_303531 |
| M00027514C:F01 | ES 168 | 187525    | 1521.N10.gz43_303566 |
| M00027517C:F08 | ES 168 | 215366    | 1521.N12.gz43_303598 |
| M00027586B:B03 | ES 168 | 218904    | 1521.O13.gz43_303615 |
| M00027587C:F02 | ES 168 | 185056    | 1521.O16.gz43_303663 |
| M00027694C:C11 | ES 168 | 186404    | 1521.P20.gz43_303728 |
| M00028061D:D10 | ES 168 | 432159    | 2128.A24.gz43_277785 |
| M00028359D:F09 | ES 168 | 188377    | 2128.H15.gz43_277648 |
| M00028627B:F12 | ES 168 | 427799    | 2128.K06.gz43_277507 |
| M00032476D:F07 | ES 168 | 155615    | 2128.P17.gz43_277688 |
| M00032477A:B02 | ES 168 | 125604    | 2128.P18.gz43_277704 |
| M00032685B:C10 | ES 168 | 427571    | 2130.H13.gz43_278017 |
| M00032686C:D10 | ES 168 | 38494     | 2130.H16.gz43_278065 |
| M00032686D:G09 | ES 168 | 78607     | 2130.H18.gz43_278097 |
| M00032695B:A01 | ES 168 | 44615     | 2130.I20.gz43_278130 |
| M00032703D:E10 | ES 168 | 90192     | 2130.J18.gz43_278099 |
| M00032732A:A03 | ES 168 | 376753    | 2130.M21.gz43_278150 |
| M00032736A:B06 | ES 168 | 429735    | 2130.N02.gz43_277847 |
| M00032738D:G11 | ES 168 | 436888    | 2130.N09.gz43_277959 |
| M00032745C:F03 | ES 168 | 72838     | 2130.O05.gz43_277896 |
| M00032766A:A10 | ES 168 | 427907    | 2131.A01.gz43_307885 |
| M00032779A:A04 | ES 168 | 37875     | 2131.A19.gz43_308173 |
| M00032780A:B09 | ES 168 | 48238     | 2131.A23.gz43_308237 |
| M00032783A:H08 | ES 168 | 226324    | 2131.B04.gz43_307934 |
| M00032786A:H04 | ES 168 | 221686    | 2131.B14.gz43_308094 |
| M00032809B:E10 | ES 168 | 441801    | 2131.E06.gz43_307969 |





Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00039503B:G05 | ES 168 | 413621    | 2176.F01.gz43_281685 |
| M00039503D:E08 | ES 168 | 412621    | 2176.F02.gz43_281701 |
| M00039504B:F05 | ES 168 | 402941    | 2176.F06.gz43_281765 |
| M00039505B:G07 | ES 168 | 413627    | 2176.F13.gz43_281877 |
| M00039507D:E03 | ES 168 | 412483    | 2176.F24.gz43_282053 |
| M00039508D:C03 | ES 168 | 411113    | 2176.G03.gz43_281718 |
| M00039514A:G03 | ES 168 | 402392    | 2176.G24.gz43_282054 |
| M00039514B:E07 | ES 168 | 407711    | 2176.H02.gz43_281703 |
| M00039516C:H06 | ES 168 | 400633    | 2176.H09.gz43_281815 |
| M00039521A:D02 | ES 168 | 400454    | 2176.H20.gz43_281991 |
| M00039521C:B01 | ES 168 | 405932    | 2176.H22.gz43_282023 |
| M00039523A:D09 | ES 168 | 402411    | 2176.I04.gz43_281736 |
| M00039525B:H03 | ES 168 | 409612    | 2176.I14.gz43_281896 |
| M00039527B:D06 | ES 168 | 406855    | 2176.I19.gz43_281976 |
| M00039530B:H07 | ES 168 | 414355    | 2176.J04.gz43_281737 |
| M00039534A:H04 | ES 168 | 49950     | 2176.J13.gz43_281881 |
| M00039534D:E07 | ES 168 | 412416    | 2176.J17.gz43_281945 |
| M00039536B:E10 | ES 168 | 402147    | 2176.J20.gz43_281993 |
| M00039536B:H03 | ES 168 | 413997    | 2176.J21.gz43_282009 |
| M00039537B:F06 | ES 168 | 401510    | 2176.J24.gz43_282057 |
| M00039562A:D10 | ES 168 | 400428    | 2176.K08.gz43_281802 |
| M00039562D:B02 | ES 168 | 400233    | 2176.K10.gz43_281834 |
| M00039562D:G01 | ES 168 | 408986    | 2176.K11.gz43_281850 |
| M00039563C:D01 | ES 168 | 407260    | 2176.K13.gz43_281882 |
| M00039564B:F08 | ES 168 | 408306    | 2176.K18.gz43_281962 |
| M00039564C:H05 | ES 168 | 409589    | 2176.K21.gz43_282010 |
| M00039565B:H09 | ES 168 | 402287    | 2176.K24.gz43_282058 |
| M00039566D:E08 | ES 168 | 400628    | 2176.L06.gz43_281771 |
| M00039568C:E05 | ES 168 | 94771     | 2176.L11.gz43_281851 |
| M00039583A:G09 | ES 168 | 408649    | 2176.L24.gz43_282059 |
| M00039586A:C03 | ES 168 | 406499    | 2176.M13.gz43_281884 |
| M00039586D:D05 | ES 168 | 406734    | 2176.M17.gz43_281948 |
| M00039588A:H12 | ES 168 | 202308    | 2176.M20.gz43_281996 |
| M00039588B:H02 | ES 168 | 409262    | 2176.M21.gz43_282012 |
| M00039588D:F10 | ES 168 | 402049    | 2176.M22.gz43_282028 |
| M00039592C:F09 | ES 168 | 413346    | 2176.N07.gz43_281789 |
| M00039592D:E01 | ES 168 | 401005    | 2176.N09.gz43_281821 |
| M00039594A:F09 | ES 168 | 413133    | 2176.N14.gz43_281901 |
| M00039599A:E08 | ES 168 | 407964    | 2176.O07.gz43_281790 |
| M00039605D:E02 | ES 168 | 401426    | 2176.P01.gz43_281695 |
| M00039606C:B07 | ES 168 | 202308    | 2176.P07.gz43_281791 |
| M00039607A:F05 | ES 168 | 402147    | 2176.P09.gz43_281823 |
| M00039610A:G11 | ES 168 | 413915    | 2176.P23.gz43_282047 |
| M00039619C:B01 | ES 168 | 376994    | 2155.I16.gz43_279735 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00039632A:C01 | ES 168 | 60037     | 2155.J03.gz43_279528 |
| M00039664B:H10 | ES 168 | 376839    | 2155.N05.gz43_279564 |
| M00039665C:B01 | ES 168 | 379805    | 2155.N15.gz43_279724 |
| M00039674B:G11 | ES 168 | 373680    | 2155.P11.gz43_279662 |
| M00039675C:C05 | ES 168 | 379879    | 2155.P22.gz43_279838 |
| M00039679C:A02 | ES 168 | 379279    | 2164.A24.gz43_280239 |
| M00039681B:F05 | ES 168 | 379046    | 2164.B15.gz43_280096 |
| M00039698A:A06 | ES 168 | 396785    | 2164.D18.gz43_280146 |
| M00039730B:B07 | ES 168 | 398028    | 2164.H18.gz43_280150 |
| M00039734A:E06 | ES 168 | 377772    | 2178.A12.gz43_282310 |
| M00039752D:D07 | ES 168 | 402070    | 2178.B16.gz43_282375 |
| M00039753B:A11 | ES 168 | 401748    | 2178.B17.gz43_282391 |
| M00039760B:F12 | ES 168 | 419751    | 2178.C15.gz43_282360 |
| M00039760C:H07 | ES 168 | 420504    | 2178.C18.gz43_282408 |
| M00039774A:E11 | ES 168 | 380025    | 2164.I10.gz43_280023 |
| M00039778D:D05 | ES 168 | 397167    | 2164.J03.gz43_279912 |
| M00039820D:F08 | ES 168 | 376074    | 2164.O24.gz43_280253 |
| M00039823D:D09 | ES 168 | 216179    | 2164.P10.gz43_280030 |
| M00039871C:C01 | ES 168 | 398061    | 2165.F09.gz43_280388 |
| M00039883D:G06 | ES 168 | 373905    | 2165.H01.gz43_280262 |
| M00039885B:A10 | ES 168 | 393635    | 2165.H06.gz43_280342 |
| M00039893A:G12 | ES 168 | 376808    | 2165.I10.gz43_280407 |
| M00039905B:F09 | ES 168 | 376773    | 2165.K01.gz43_280265 |
| M00039977C:C05 | ES 168 | 67549     | 2165.P01.gz43_280270 |
| M00039978D:C04 | ES 168 | 396969    | 2165.P07.gz43_280366 |
| M00039986B:A11 | ES 168 | 375655    | 2166.A06.gz43_281279 |
| M00039988B:C08 | ES 168 | 379879    | 2166.A11.gz43_281359 |
| M00040001A:H02 | ES 168 | 398831    | 2166.A23.gz43_281551 |
| M00040070C:D11 | ES 168 | 377696    | 2166.J11.gz43_281368 |
| M00040076B:D01 | ES 168 | 233814    | 2166.K07.gz43_281305 |
| M00040096D:C03 | ES 168 | 379879    | 2166.N07.gz43_281308 |
| M00040113C:H09 | ES 168 | 185432    | 2166.P24.gz43_281582 |
| M00040134A:A07 | ES 168 | 402411    | 2178.D07.gz43_282233 |
| M00040141A:G10 | ES 168 | 417259    | 2178.E04.gz43_282186 |
| M00040145B:C12 | ES 168 | 385980    | 2178.E21.gz43_282458 |
| M00040160C:A04 | ES 168 | 414821    | 2178.G05.gz43_282204 |
| M00040161C:H06 | ES 168 | 417426    | 2178.G11.gz43_282300 |
| M00040161D:C03 | ES 168 | 415527    | 2178.G12.gz43_282316 |
| M00040171B:F01 | ES 168 | 416819    | 2178.H19.gz43_282429 |
| M00040171B:H03 | ES 168 | 402353    | 2178.H20.gz43_282445 |
| M00040181B:B06 | ES 168 | 418340    | 2178.J12.gz43_282319 |
| M00040181B:C05 | ES 168 | 403837    | 2178.J13.gz43_282335 |
| M00040183B:C06 | ES 168 | 418682    | 2178.K02.gz43_282160 |
| M00040183D:C08 | ES 168 | 402534    | 2178.K05.gz43_282208 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00040188B:E05 | ES 168 | 419255    | 2178.L07.gz43_282241 |
| M00040189D:A06 | ES 168 | 403154    | 2178.L12.gz43_282321 |
| M00040190B:C02 | ES 168 | 418482    | 2178.L14.gz43_282353 |
| M00040196B:F10 | ES 168 | 416914    | 2178.L20.gz43_282449 |
| M00040197B:D05 | ES 168 | 415950    | 2178.M03.gz43_282178 |
| M00040222A:E06 | ES 168 | 57183     | 2178.M22.gz43_282482 |
| M00040222C:E06 | ES 168 | 416370    | 2178.N03.gz43_282179 |
| M00040223B:G05 | ES 168 | 417240    | 2178.N07.gz43_282243 |
| M00040227A:E07 | ES 168 | 402070    | 2178.N16.gz43_282387 |
| M00040230B:B01 | ES 168 | 415058    | 2178.O07.gz43_282244 |
| M00040233C:F09 | ES 168 | 416762    | 2178.O21.gz43_282468 |
| M00040235C:D02 | ES 168 | 402049    | 2178.P04.gz43_282197 |
|                |        |           |                      |
| M00039747A:H06 | ES 169 | 423884    | 2184.A03.gz43_282699 |
| M00039748A:E12 | ES 169 | 422788    | 2184.A05.gz43_282731 |
| M00039749B:G05 | ES 169 | 402298    | 2184.A08.gz43_282779 |
| M00039750C:F08 | ES 169 | 403306    | 2184.A17.gz43_282923 |
| M00039762C:D11 | ES 169 | 140224    | 2184.A22.gz43_283003 |
| M00039770C:B08 | ES 169 | 424793    | 2184.B21.gz43_282988 |
| M00039947A:G06 | ES 169 | 423202    | 2184.C17.gz43_282925 |
| M00039950C:C05 | ES 169 | 403306    | 2184.D01.gz43_282670 |
| M00039958D:D05 | ES 169 | 402049    | 2184.D16.gz43_282910 |
| M00040210D:C09 | ES 169 | 424996    | 2184.F12.gz43_282848 |
| M00040248A:G09 | ES 169 | 402941    | 2178.P19.gz43_282437 |
| M00040294B:E09 | ES 169 | 402298    | 2184.G24.gz43_283041 |
| M00040297B:G04 | ES 169 | 423214    | 2184.H17.gz43_282930 |
| M00040318C:B09 | ES 169 | 403111    | 2184.J04.gz43_282724 |
| M00040319A:E03 | ES 169 | 422542    | 2184.J07.gz43_282772 |
| M00040319C:F08 | ES 169 | 235376    | 2184.J10.gz43_282820 |
| M00040319D:G10 | ES 169 | 423534    | 2184.J11.gz43_282836 |
| M00040320A:B06 | ES 169 | 401748    | 2184.J12.gz43_282852 |
| M00040322B:A08 | ES 169 | 420958    | 2184.K02.gz43_282693 |
| M00040323D:F04 | ES 169 | 423008    | 2184.K13.gz43_282869 |
| M00040328D:A03 | ES 169 | 402298    | 2184.L01.gz43_282678 |
| M00040330D:C12 | ES 169 | 421826    | 2184.L10.gz43_282822 |
| M00040338C:D05 | ES 169 | 396509    | 2184.M14.gz43_282887 |
| M00040347B:B11 | ES 169 | 424723    | 2184.N13.gz43_282872 |
| M00040363A:G07 | ES 169 | 403837    | 2184.O04.gz43_282729 |
| M00040364B:E11 | ES 169 | 422590    | 2184.O07.gz43_282777 |
| M00042341A:D08 | ES 169 | 0         | 1561.A04.gz43_314441 |
| M00042341A:H04 | ES 169 | 0         | 1561.A06.gz43_314473 |
| M00042341D:G11 | ES 169 | 0         | 1561.A14.gz43_314601 |
| M00042342A:B04 | ES 169 | 0         | 1561.A15.gz43_314617 |
| M00042342C:H03 | ES 169 | 0         | 1561.A18.gz43_314665 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042342D:D03 | ES 169 | 0         | 1561.A20.gz43_314697 |
| M00042343A:C05 | ES 169 | 0         | 1561.A24.gz43_314761 |
| M00042343B:D05 | ES 169 | 0         | 1561.B04.gz43_314442 |
| M00042343B:E06 | ES 169 | 0         | 1561.B05.gz43_314458 |
| M00042343B:F12 | ES 169 | 0         | 1561.B06.gz43_314474 |
| M00042343D:F08 | ES 169 | 0         | 1561.B09.gz43_314522 |
| M00042344B:F02 | ES 169 | 0         | 1561.B17.gz43_314650 |
| M00042344B:H12 | ES 169 | 0         | 1561.B19.gz43_314682 |
| M00042344D:F03 | ES 169 | 0         | 1561.C01.gz43_314395 |
| M00042345A:E04 | ES 169 | 0         | 1561.C03.gz43_314427 |
| M00042345B:A05 | ES 169 | 0         | 1561.C05.gz43_314459 |
| M00042345D:B01 | ES 169 | 0         | 1561.C10.gz43_314539 |
| M00042345D:D04 | ES 169 | 0         | 1561.C12.gz43_314571 |
| M00042521A:E10 | ES 169 | 0         | 1561.C16.gz43_314635 |
| M00042521C:F11 | ES 169 | 0         | 1561.C19.gz43_314683 |
| M00042521D:G09 | ES 169 | 0         | 1561.C22.gz43_314731 |
| M00042522A:A05 | ES 169 | 0         | 1561.C24.gz43_314763 |
| M00042522C:H10 | ES 169 | 0         | 1561.D10.gz43_314540 |
| M00042522D:A08 | ES 169 | 0         | 1561.D11.gz43_314556 |
| M00042523B:H01 | ES 169 | 0         | 1561.D20.gz43_314700 |
| M00042523C:E08 | ES 169 | 0         | 1561.D23.gz43_314748 |
| M00042523C:H04 | ES 169 | 0         | 1561.E02.gz43_314413 |
| M00042523C:H06 | ES 169 | 0         | 1561.E03.gz43_314429 |
| M00042524C:C12 | ES 169 | 0         | 1561.E15.gz43_314621 |
| M00042524D:A10 | ES 169 | 0         | 1561.E17.gz43_314653 |
| M00042524D:D06 | ES 169 | 0         | 1561.E19.gz43_314685 |
| M00042525C:H07 | ES 169 | 0         | 1561.F12.gz43_314574 |
| M00042525D:E01 | ES 169 | 0         | 1561.F15.gz43_314622 |
| M00042526A:E10 | ES 169 | 0         | 1561.F17.gz43_314654 |
| M00042526A:F11 | ES 169 | 0         | 1561.F19.gz43_314686 |
| M00042526B:C12 | ES 169 | 0         | 1561.F20.gz43_314702 |
| M00042526C:B12 | ES 169 | 0         | 1561.F23.gz43_314750 |
| M00042526D:A02 | ES 169 | 0         | 1561.F24.gz43_314766 |
| M00042526D:A05 | ES 169 | 0         | 1561.G01.gz43_314399 |
| M00042526D:A07 | ES 169 | 0         | 1561.G02.gz43_314415 |
| M00042526D:D04 | ES 169 | 0         | 1561.G04.gz43_314447 |
| M00042527B:B01 | ES 169 | 0         | 1561.G11.gz43_314559 |
| M00042527C:A10 | ES 169 | 0         | 1561.G14.gz43_314607 |
| M00042527C:F01 | ES 169 | 0         | 1561.G15.gz43_314623 |
| M00042527D:E05 | ES 169 | 0         | 1561.G20.gz43_314703 |
| M00042527D:F12 | ES 169 | 0         | 1561.G23.gz43_314751 |
| M00042528C:G06 | ES 169 | 0         | 1561.H07.gz43_314496 |
| M00042528D:D09 | ES 169 | 0         | 1561.H09.gz43_314528 |
| M00042528D:H03 | ES 169 | 0         | 1561.H10.gz43_314544 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042529A:B12 | ES 169 | 0         | 1561.H13.gz43_314592 |
| M00042529A:G07 | ES 169 | 0         | 1561.H15.gz43_314624 |
| M00042529B:E03 | ES 169 | 0         | 1561.H19.gz43_314688 |
| M00042529D:D07 | ES 169 | 0         | 1561.I02.gz43_314417 |
| M00042530C:H02 | ES 169 | 0         | 1561.I11.gz43_314561 |
| M00042530D:A02 | ES 169 | 0         | 1561.I12.gz43_314577 |
| M00042530D:F09 | ES 169 | 0         | 1561.I14.gz43_314609 |
| M00042530D:H12 | ES 169 | 0         | 1561.I17.gz43_314657 |
| M00042531B:D12 | ES 169 | 0         | 1561.I22.gz43_314737 |
| M00042531B:G12 | ES 169 | 0         | 1561.J01.gz43_314402 |
| M00042531D:G08 | ES 169 | 0         | 1561.J05.gz43_314466 |
| M00042532A:D08 | ES 169 | 0         | 1561.J09.gz43_314530 |
| M00042532A:H03 | ES 169 | 0         | 1561.J14.gz43_314610 |
| M00042533B:F11 | ES 169 | 0         | 1561.K02.gz43_314419 |
| M00042533C:F04 | ES 169 | 0         | 1561.K05.gz43_314467 |
| M00042533D:B05 | ES 169 | 0         | 1561.K06.gz43_314483 |
| M00042534A:G10 | ES 169 | 0         | 1561.K14.gz43_314611 |
| M00042534B:B08 | ES 169 | 0         | 1561.K16.gz43_314643 |
| M00042534B:D06 | ES 169 | 0         | 1561.K17.gz43_314659 |
| M00042534C:A09 | ES 169 | 0         | 1561.K19.gz43_314691 |
| M00042534C:G04 | ES 169 | 0         | 1561.K20.gz43_314707 |
| M00042534D:D10 | ES 169 | 0         | 1561.K23.gz43_314755 |
| M00042535B:E04 | ES 169 | 0         | 1561.L03.gz43_314436 |
| M00042536B:G08 | ES 169 | 0         | 1561.L15.gz43_314628 |
| M00042536C:A06 | ES 169 | 0         | 1561.L16.gz43_314644 |
| M00042536C:B03 | ES 169 | 0         | 1561.L18.gz43_314676 |
| M00042537A:A07 | ES 169 | 0         | 1561.L22.gz43_314740 |
| M00042537A:D12 | ES 169 | 0         | 1561.M01.gz43_314405 |
| M00042537A:G09 | ES 169 | 0         | 1561.M04.gz43_314453 |
| M00042537A:H04 | ES 169 | 0         | 1561.M05.gz43_314469 |
| M00042537B:A07 | ES 169 | 0         | 1561.M06.gz43_314485 |
| M00042537B:B05 | ES 169 | 0         | 1561.M07.gz43_314501 |
| M00042537C:D04 | ES 169 | 0         | 1561.M10.gz43_314549 |
| M00042539B:D09 | ES 169 | 0         | 1561.N06.gz43_314486 |
| M00042539C:A04 | ES 169 | 0         | 1561.N07.gz43_314502 |
| M00042539C:E05 | ES 169 | 0         | 1561.N08.gz43_314518 |
| M00042539C:H08 | ES 169 | 0         | 1561.N09.gz43_314534 |
| M00042539D:A04 | ES 169 | 0         | 1561.N10.gz43_314550 |
| M00042540A:D11 | ES 169 | 0         | 1561.N13.gz43_314598 |
| M00042540A:G11 | ES 169 | 0         | 1561.N14.gz43_314614 |
| M00042540B:B03 | ES 169 | 0         | 1561.N16.gz43_314646 |
| M00042540C:A12 | ES 169 | 0         | 1561.N17.gz43_314662 |
| M00042540D:F12 | ES 169 | 0         | 1561.N23.gz43_314758 |
| M00042540D:H02 | ES 169 | 0         | 1561.N24.gz43_314774 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042541A:B07 | ES 169 | 0         | 1561.O04.gz43_314455 |
| M00042541A:E06 | ES 169 | 0         | 1561.O06.gz43_314487 |
| M00042541A:G02 | ES 169 | 0         | 1561.O07.gz43_314503 |
| M00042541B:B05 | ES 169 | 0         | 1561.O09.gz43_314535 |
| M00042542A:C11 | ES 169 | 0         | 1561.O18.gz43_314679 |
| M00042542B:B01 | ES 169 | 0         | 1561.O21.gz43_314727 |
| M00042542B:C11 | ES 169 | 0         | 1561.O23.gz43_314759 |
| M00042542B:E04 | ES 169 | 0         | 1561.O24.gz43_314775 |
| M00042543B:H12 | ES 169 | 0         | 1561.P18.gz43_314680 |
| M00042543C:F06 | ES 169 | 0         | 1561.P21.gz43_314728 |
| M00042546A:D03 | ES 169 | 446572    | 1562.B01.gz43_207804 |
| M00042546D:E06 | ES 169 | 446389    | 1562.B13.gz43_207996 |
| M00042547B:D11 | ES 169 | 446531    | 1562.B22.gz43_208140 |
| M00042548B:A01 | ES 169 | 456845    | 1562.C12.gz43_207981 |
| M00042548B:G01 | ES 169 | 462149    | 1562.C14.gz43_208013 |
| M00042550A:D12 | ES 169 | 446674    | 1562.D12.gz43_207982 |
| M00042550C:H10 | ES 169 | 446981    | 1562.D18.gz43_208078 |
| M00042552C:D02 | ES 169 | 466280    | 1562.E22.gz43_208143 |
| M00042552D:A11 | ES 169 | 464091    | 1562.F01.gz43_207808 |
| M00042554A:C02 | ES 169 | 451780    | 1562.F04.gz43_207856 |
| M00042554C:E02 | ES 169 | 467262    | 1562.F08.gz43_207920 |
| M00042554C:F09 | ES 169 | 447597    | 1562.F10.gz43_207952 |
| M00042554D:C08 | ES 169 | 465594    | 1562.F12.gz43_207984 |
| M00042555A:A04 | ES 169 | 464067    | 1562.F17.gz43_208064 |
| M00042555A:A10 | ES 169 | 447152    | 1562.F18.gz43_208080 |
| M00042555B:B07 | ES 169 | 464905    | 1562.F20.gz43_208112 |
| M00042555D:G10 | ES 169 | 469511    | 1562.G05.gz43_207873 |
| M00042556A:G12 | ES 169 | 451737    | 1562.G10.gz43_207953 |
| M00042556B:D12 | ES 169 | 466719    | 1562.G12.gz43_207985 |
| M00042556B:E10 | ES 169 | 447174    | 1562.G14.gz43_208017 |
| M00042557A:D09 | ES 169 | 455075    | 1562.H05.gz43_207874 |
| M00042557D:H12 | ES 169 | 469837    | 1562.H17.gz43_208066 |
| M00042558A:D03 | ES 169 | 447517    | 1562.H18.gz43_208082 |
| M00042558A:F11 | ES 169 | 468330    | 1562.H20.gz43_208114 |
| M00042558D:B07 | ES 169 | 447308    | 1562.I03.gz43_207843 |
| M00042560B:A01 | ES 169 | 408386    | 1562.J01.gz43_207812 |
| M00042560B:G10 | ES 169 | 456462    | 1562.J04.gz43_207860 |
| M00042561B:E12 | ES 169 | 446620    | 1562.J21.gz43_208132 |
| M00042561C:E12 | ES 169 | 446621    | 1562.J24.gz43_208180 |
| M00042562C:A07 | ES 169 | 457405    | 1562.K14.gz43_208021 |
| M00042563A:F10 | ES 169 | 446829    | 1562.L02.gz43_207830 |
| M00042563C:D08 | ES 169 | 459536    | 1562.L09.gz43_207942 |
| M00042563C:E02 | ES 169 | 446614    | 1562.L10.gz43_207958 |
| M00042563D:D02 | ES 169 | 459523    | 1562.L11.gz43_207974 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042563D:D09 | ES 169 | 446495    | 1562.L12.gz43_207990 |
| M00042564A:F01 | ES 169 | 461559    | 1562.L19.gz43_208102 |
| M00042564B:D11 | ES 169 | 446495    | 1562.L22.gz43_208150 |
| M00042564D:F10 | ES 169 | 456471    | 1562.M06.gz43_207895 |
| M00042565A:G05 | ES 169 | 432159    | 1562.M10.gz43_207959 |
| M00042565A:H03 | ES 169 | 463487    | 1562.M12.gz43_207991 |
| M00042567C:E02 | ES 169 | 446703    | 1562.N16.gz43_208056 |
| M00042567C:E07 | ES 169 | 460972    | 1562.N18.gz43_208088 |
| M00042567D:B08 | ES 169 | 457783    | 1562.N21.gz43_208136 |
| M00042567D:E12 | ES 169 | 460493    | 1562.N24.gz43_208184 |
| M00042568C:E03 | ES 169 | 446657    | 1562.O14.gz43_208025 |
| M00042568C:E08 | ES 169 | 460766    | 1562.O15.gz43_208041 |
| M00042569B:G07 | ES 169 | 43338     | 1562.P03.gz43_207850 |
| M00042569C:B05 | ES 169 | 447346    | 1562.P05.gz43_207882 |
| M00042569D:D02 | ES 169 | 460190    | 1562.P09.gz43_207946 |
| M00042570A:E08 | ES 169 | 460516    | 1562.P11.gz43_207978 |
| M00042570B:F11 | ES 169 | 417078    | 1562.P18.gz43_208090 |
| M00042570C:B12 | ES 169 | 457842    | 1562.P21.gz43_208138 |
| M00042571C:F03 | ES 169 | 468783    | 1563.A14.gz43_208395 |
| M00042571D:D06 | ES 169 | 467057    | 1563.A15.gz43_208411 |
| M00042572B:C07 | ES 169 | 446302    | 1563.A19.gz43_208475 |
| M00042572B:E05 | ES 169 | 460789    | 1563.A20.gz43_208491 |
| M00042573A:D05 | ES 169 | 466971    | 1563.B05.gz43_208252 |
| M00042573C:D05 | ES 169 | 456052    | 1563.B14.gz43_208396 |
| M00042573D:A10 | ES 169 | 463896    | 1563.B21.gz43_208508 |
| M00042574A:F05 | ES 169 | 446409    | 1563.B23.gz43_208540 |
| M00042574B:A07 | ES 169 | 456925    | 1563.B24.gz43_208556 |
| M00042574C:A04 | ES 169 | 456920    | 1563.C04.gz43_208237 |
|                |        |           |                      |
| M00042575A:E01 | ES 170 | 467327    | 1563.C14.gz43_208397 |
| M00042575A:E02 | ES 170 | 451383    | 1563.C15.gz43_208413 |
| M00042575B:F02 | ES 170 | 451382    | 1563.C20.gz43_208493 |
| M00042575D:A11 | ES 170 | 464275    | 1563.D01.gz43_208190 |
| M00042575D:C05 | ES 170 | 447417    | 1563.D03.gz43_208222 |
| M00042576B:D11 | ES 170 | 459961    | 1563.D12.gz43_208366 |
| M00042576D:A08 | ES 170 | 446213    | 1563.D17.gz43_208446 |
| M00042576D:F01 | ES 170 | 446839    | 1563.D21.gz43_208510 |
| M00042577A:A11 | ES 170 | 464547    | 1563.D23.gz43_208542 |
| M00042577B:D05 | ES 170 | 467051    | 1563.E06.gz43_208271 |
| M00042578A:E08 | ES 170 | 447597    | 1563.E14.gz43_208399 |
| M00042579A:B05 | ES 170 | 446933    | 1563.E22.gz43_208527 |
| M00042579B:E05 | ES 170 | 467644    | 1563.F01.gz43_208192 |
| M00042580C:A03 | ES 170 | 463951    | 1563.F13.gz43_208384 |
| M00042691A:D08 | ES 170 | 460244    | 1563.F19.gz43_208480 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042691A:G04 | ES 170 | 462767    | 1563.F21.gz43_208512 |
| M00042691C:A05 | ES 170 | 456985    | 1563.G04.gz43_208241 |
| M00042691D:B03 | ES 170 | 457890    | 1563.G08.gz43_208305 |
| M00042691D:F03 | ES 170 | 446776    | 1563.G12.gz43_208369 |
| M00042692A:E11 | ES 170 | 467293    | 1563.G16.gz43_208433 |
| M00042692B:F04 | ES 170 | 44503     | 1563.G22.gz43_208529 |
| M00042693B:D03 | ES 170 | 446549    | 1563.H09.gz43_208322 |
| M00042694B:G05 | ES 170 | 446962    | 1563.H18.gz43_208466 |
| M00042694C:F01 | ES 170 | 462008    | 1563.H23.gz43_208546 |
| M00042695C:F05 | ES 170 | 461734    | 1563.I09.gz43_208323 |
| M00042695D:E11 | ES 170 | 460884    | 1563.I12.gz43_208371 |
| M00042695D:H01 | ES 170 | 463368    | 1563.I14.gz43_208403 |
| M00042697B:F06 | ES 170 | 451454    | 1563.J01.gz43_208196 |
| M00042697D:A03 | ES 170 | 447190    | 1563.J03.gz43_208228 |
| M00042698A:A01 | ES 170 | 142559    | 1563.J05.gz43_208260 |
| M00042699C:H06 | ES 170 | 453605    | 1563.K08.gz43_208309 |
| M00042700B:C12 | ES 170 | 138049    | 1563.K12.gz43_208373 |
| M00042700C:F11 | ES 170 | 468109    | 1563.K20.gz43_208501 |
| M00042700D:G08 | ES 170 | 468979    | 1563.K24.gz43_208565 |
| M00042702B:B07 | ES 170 | 447326    | 1563.L20.gz43_208502 |
| M00042702B:G07 | ES 170 | 447826    | 1563.L22.gz43_208534 |
| M00042702D:H01 | ES 170 | 469944    | 1563.M02.gz43_208215 |
| M00042704A:C02 | ES 170 | 447433    | 1563.M18.gz43_208471 |
| M00042705A:B07 | ES 170 | 465339    | 1563.N08.gz43_208312 |
| M00042706C:D02 | ES 170 | 51939     | 1563.O02.gz43_208217 |
| M00042707B:G05 | ES 170 | 450929    | 1563.O14.gz43_208409 |
| M00042707C:A09 | ES 170 | 446922    | 1563.O16.gz43_208441 |
| M00042709B:G05 | ES 170 | 468930    | 1564.A01.gz43_296552 |
| M00042709C:B05 | ES 170 | 464937    | 1564.A02.gz43_296568 |
| M00042710A:G10 | ES 170 | 462393    | 1564.A08.gz43_296664 |
| M00042710B:B09 | ES 170 | 457975    | 1564.A09.gz43_296680 |
| M00042711A:F01 | ES 170 | 389425    | 1564.A20.gz43_296856 |
| M00042711B:H04 | ES 170 | 463143    | 1564.B01.gz43_296553 |
| M00042711C:H10 | ES 170 | 447006    | 1564.B06.gz43_296633 |
| M00042711D:A03 | ES 170 | 446191    | 1564.B07.gz43_296649 |
| M00042711D:G04 | ES 170 | 462604    | 1564.B09.gz43_296681 |
| M00042712A:E08 | ES 170 | 467780    | 1564.B12.gz43_296729 |
| M00042712B:C04 | ES 170 | 447429    | 1564.B16.gz43_296793 |
| M00042712C:E06 | ES 170 | 447649    | 1564.B19.gz43_296841 |
| M00042713B:C08 | ES 170 | 465785    | 1564.C01.gz43_296554 |
| M00042713B:F03 | ES 170 | 447189    | 1564.C03.gz43_296586 |
| M00042713C:A09 | ES 170 | 446230    | 1564.C04.gz43_296602 |
| M00042713C:B08 | ES 170 | 447268    | 1564.C05.gz43_296618 |
| M00042713D:C06 | ES 170 | 465782    | 1564.C07.gz43_296650 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042714A:G04 | ES 170 | 456530    | 1564.C11.gz43_296714 |
| M00042714A:H05 | ES 170 | 447561    | 1564.C12.gz43_296730 |
| M00042714B:C07 | ES 170 | 447430    | 1564.C13.gz43_296746 |
| M00042714B:E01 | ES 170 | 447826    | 1564.C15.gz43_296778 |
| M00042714C:C10 | ES 170 | 465528    | 1564.C19.gz43_296842 |
| M00042714C:F12 | ES 170 | 449171    | 1564.C21.gz43_296874 |
| M00042714D:E11 | ES 170 | 452504    | 1564.C24.gz43_296922 |
| M00042715D:A10 | ES 170 | 457644    | 1564.D13.gz43_296747 |
| M00042715D:E02 | ES 170 | 446741    | 1564.D15.gz43_296779 |
| M00042716A:F09 | ES 170 | 446866    | 1564.D22.gz43_296891 |
| M00042716D:G04 | ES 170 | 462337    | 1564.E11.gz43_296716 |
| M00042717B:G11 | ES 170 | 462865    | 1564.E19.gz43_296844 |
| M00042719A:H06 | ES 170 | 452687    | 1564.F15.gz43_296781 |
| M00042719C:H05 | ES 170 | 405932    | 1564.F19.gz43_296845 |
| M00042720C:E03 | ES 170 | 461135    | 1564.G07.gz43_296654 |
| M00042721A:G07 | ES 170 | 446964    | 1564.G13.gz43_296750 |
| M00042721B:A04 | ES 170 | 446230    | 1564.G14.gz43_296766 |
| M00042721D:B03 | ES 170 | 457922    | 1564.G19.gz43_296846 |
| M00042721D:D01 | ES 170 | 450723    | 1564.G21.gz43_296878 |
| M00042722A:G08 | ES 170 | 462348    | 1564.H03.gz43_296591 |
| M00042722B:D06 | ES 170 | 460051    | 1564.H05.gz43_296623 |
| M00042722D:C12 | ES 170 | 459158    | 1564.H13.gz43_296751 |
| M00042723A:D09 | ES 170 | 446601    | 1564.H15.gz43_296783 |
| M00042724A:G02 | ES 170 | 453766    | 1564.I01.gz43_296560 |
| M00042724D:B04 | ES 170 | 446345    | 1564.I09.gz43_296688 |
| M00042724D:H04 | ES 170 | 447048    | 1564.I13.gz43_296752 |
| M00042726B:E01 | ES 170 | 446732    | 1564.I20.gz43_296864 |
| M00042726D:G11 | ES 170 | 462398    | 1564.J01.gz43_296561 |
| M00042729A:F11 | ES 170 | 461316    | 1564.K05.gz43_296626 |
| M00042729A:H08 | ES 170 | 462986    | 1564.K08.gz43_296674 |
| M00042729B:F10 | ES 170 | 461313    | 1564.K12.gz43_296738 |
| M00042730D:D01 | ES 170 | 424996    | 1564.L05.gz43_296627 |
| M00042732A:A11 | ES 170 | 453679    | 1564.L12.gz43_296739 |
| M00042733C:C05 | ES 170 | 454825    | 1564.M08.gz43_296676 |
| M00042733D:G08 | ES 170 | 450723    | 1564.M13.gz43_296756 |
| M00042735A:G07 | ES 170 | 469754    | 1564.M20.gz43_296868 |
| M00042735A:G12 | ES 170 | 469766    | 1564.M21.gz43_296884 |
| M00042735B:A06 | ES 170 | 403949    | 1564.M23.gz43_296916 |
| M00042735C:G02 | ES 170 | 420686    | 1564.N05.gz43_296629 |
| M00042735D:A07 | ES 170 | 463824    | 1564.N06.gz43_296645 |
| M00042736A:F03 | ES 170 | 447387    | 1564.N11.gz43_296725 |
| M00042736B:G09 | ES 170 | 447813    | 1564.N14.gz43_296773 |
| M00042737A:A07 | ES 170 | 463821    | 1564.N19.gz43_296853 |
| M00042737B:C07 | ES 170 | 390563    | 1564.O01.gz43_296566 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042737B:E02 | ES 170 | 467189    | 1564.O02.gz43_296582 |
| M00042737C:C07 | ES 170 | 446740    | 1564.O04.gz43_296614 |
| M00042737C:E03 | ES 170 | 447579    | 1564.O05.gz43_296630 |
| M00042737D:D03 | ES 170 | 466614    | 1564.O08.gz43_296678 |
| M00042738D:H12 | ES 170 | 463217    | 1564.O19.gz43_296854 |
| M00042739A:C06 | ES 170 | 446242    | 1564.O20.gz43_296870 |
| M00042739A:D02 | ES 170 | 460078    | 1564.O21.gz43_296886 |
| M00042739A:G07 | ES 170 | 446922    | 1564.O23.gz43_296918 |
| M00042739B:F06 | ES 170 | 453762    | 1564.P02.gz43_296583 |
| M00042740A:A01 | ES 170 | 457656    | 1564.P09.gz43_296695 |
| M00042742B:H03 | ES 170 | 450940    | 1573.A06.gz43_208651 |
| M00042744A:D11 | ES 170 | 466894    | 1573.B07.gz43_208668 |
| M00042745B:B06 | ES 170 | 464622    | 1573.C01.gz43_208573 |
| M00042745C:E11 | ES 170 | 452399    | 1573.C05.gz43_208637 |
| M00042745D:H04 | ES 170 | 452093    | 1573.C08.gz43_208685 |
| M00042747A:G12 | ES 170 | 469150    | 1573.C22.gz43_208909 |
| M00042747D:B01 | ES 170 | 447293    | 1573.D01.gz43_208574 |
| M00042747D:C08 | ES 170 | 447421    | 1573.D02.gz43_208590 |
| M00042748D:D08 | ES 170 | 466920    | 1573.D10.gz43_208718 |
| M00042750D:E07 | ES 170 | 447645    | 1573.E04.gz43_208623 |
| M00042881C:C11 | ES 170 | 639372    | 1573.E15.gz43_208799 |
| M00042882C:F06 | ES 170 | 642146    | 1573.F10.gz43_208720 |
| M00042882C:G07 | ES 170 | 467293    | 1573.F12.gz43_208752 |
| M00042882D:C04 | ES 170 | 645690    | 1573.F15.gz43_208800 |
| M00042883A:F06 | ES 170 | 639849    | 1573.F18.gz43_208848 |
| M00042884D:E03 | ES 170 | 648467    | 1573.G17.gz43_208833 |
| M00042885A:G09 | ES 170 | 463060    | 1573.G21.gz43_208897 |
| M00042886A:H03 | ES 170 | 650364    | 1573.H04.gz43_208626 |
| M00042886C:F01 | ES 170 | 650195    | 1573.H11.gz43_208738 |
| M00042886D:E10 | ES 170 | 645470    | 1573.H16.gz43_208818 |
| M00042887D:A11 | ES 170 | 455996    | 1573.H21.gz43_208898 |
| M00042888A:F02 | ES 170 | 650231    | 1573.I03.gz43_208611 |
| M00042889D:A01 | ES 170 | 447161    | 1573.J08.gz43_208692 |
| M00042889D:A12 | ES 170 | 464205    | 1573.J10.gz43_208724 |
| M00042890C:G11 | ES 170 | 497434    | 1573.K01.gz43_208581 |
| M00042890D:D03 | ES 170 | 556711    | 1573.K03.gz43_208613 |
| M00042890D:G05 | ES 170 | 401426    | 1573.K06.gz43_208661 |
| M00042891C:H01 | ES 170 | 486238    | 1573.K19.gz43_208869 |
| M00042892C:E03 | ES 170 | 557974    | 1573.L09.gz43_208710 |
| M00042892D:C04 | ES 170 | 641890    | 1573.L10.gz43_208726 |
| M00042892D:E06 | ES 170 | 650852    | 1573.L13.gz43_208774 |
| M00042892D:H04 | ES 170 | 452506    | 1573.L14.gz43_208790 |
| M00042894B:E05 | ES 170 | 633946    | 1573.M08.gz43_208695 |
| M00042894D:G05 | ES 170 | 651029    | 1573.M17.gz43_208839 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042895C:C10 | ES 170 | 453908    | 1573.N01.gz43_208584 |
| M00042896A:D04 | ES 170 | 650756    | 1573.N12.gz43_208760 |
| M00042896A:E03 | ES 170 | 452611    | 1573.N13.gz43_208776 |
| M00042896A:F09 | ES 170 | 650944    | 1573.N14.gz43_208792 |
| M00042898A:H05 | ES 170 | 447141    | 1573.P02.gz43_208602 |
| M00042900B:B10 | ES 170 | 465104    | 1574.A03.gz43_208987 |
| M00042900C:H11 | ES 170 | 470593    | 1574.A04.gz43_209003 |
| M00042901A:F12 | ES 170 | 447750    | 1574.A11.gz43_209115 |
| M00042901A:H11 | ES 170 | 389591    | 1574.A14.gz43_209163 |
| M00042902B:G02 | ES 170 | 469608    | 1574.B04.gz43_209004 |
| M00042902B:H01 | ES 170 | 470462    | 1574.B05.gz43_209020 |
| M00042902C:E11 | ES 170 | 447660    | 1574.B07.gz43_209052 |
| M00042903A:E04 | ES 170 | 467710    | 1574.B12.gz43_209132 |
| M00042903B:C09 | ES 170 | 465984    | 1574.B15.gz43_209180 |
| M00042904A:B01 | ES 170 | 447212    | 1574.B24.gz43_209324 |
| M00042904A:H10 | ES 170 | 470641    | 1574.C03.gz43_208989 |
| M00042905A:A07 | ES 170 | 447147    | 1574.C07.gz43_209053 |
| M00042905B:G03 | ES 170 | 60260     | 1574.C11.gz43_209117 |
| M00042905C:G08 | ES 170 | 447815    | 1574.C14.gz43_209165 |
| M00042906A:A12 | ES 170 | 447218    | 1574.C17.gz43_209213 |
| M00042906C:A10 | ES 170 | 451624    | 1574.D04.gz43_209006 |
| M00042907A:B11 | ES 170 | 95617     | 1574.D14.gz43_209166 |
| M00042907A:F03 | ES 170 | 447692    | 1574.D15.gz43_209182 |
| M00042907D:A11 | ES 170 | 447173    | 1574.E02.gz43_208975 |
| M00042908A:B01 | ES 170 | 642691    | 1574.E06.gz43_209039 |
| M00042908B:A11 | ES 170 | 641069    | 1574.E12.gz43_209135 |
| M00042908C:A03 | ES 170 | 649744    | 1574.E18.gz43_209231 |
| M00042908C:D12 | ES 170 | 714629    | 1574.E20.gz43_209263 |
| M00042908D:G12 | ES 170 | 647086    | 1574.E24.gz43_209327 |
| M00042909B:C04 | ES 170 | 647639    | 1574.F07.gz43_209056 |
| M00042909B:H08 | ES 170 | 650398    | 1574.F12.gz43_209136 |
| M00042909C:F10 | ES 170 | 650235    | 1574.F17.gz43_209216 |
| M00042909D:B11 | ES 170 | 650564    | 1574.F18.gz43_209232 |
| M00042910C:D03 | ES 170 | 480508    | 1574.G04.gz43_209009 |
| M00042910D:A02 | ES 170 | 466697    | 1574.G06.gz43_209041 |
| M00042910D:E11 | ES 170 | 649965    | 1574.G08.gz43_209073 |
| M00042911A:A02 | ES 170 | 649810    | 1574.G11.gz43_209121 |
| M00042911A:B02 | ES 170 | 649900    | 1574.G12.gz43_209137 |
| M00042911A:D04 | ES 170 | 641029    | 1574.G15.gz43_209185 |
| M00042911A:H12 | ES 170 | 527355    | 1574.G18.gz43_209233 |
| M00042911B:F10 | ES 170 | 648855    | 1574.G21.gz43_209281 |
| M00042911B:H08 | ES 170 | 644376    | 1574.G23.gz43_209313 |
| M00042911C:D01 | ES 170 | 562247    | 1574.G24.gz43_209329 |
| M00042912A:C01 | ES 170 | 649965    | 1574.H06.gz43_209042 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042912B:F11 | ES 171 | 645924    | 1574.H11.gz43_209122 |
| M00042912D:H08 | ES 171 | 645954    | 1574.H16.gz43_209202 |
| M00042912D:H10 | ES 171 | 640356    | 1574.H17.gz43_209218 |
| M00042913A:D09 | ES 171 | 452989    | 1574.H18.gz43_209234 |
| M00042913B:E10 | ES 171 | 639740    | 1574.H22.gz43_209298 |
| M00042914A:B05 | ES 171 | 639371    | 1574.I09.gz43_209091 |
| M00042914A:H10 | ES 171 | 650423    | 1574.I16.gz43_209203 |
| M00042914B:H03 | ES 171 | 467364    | 1574.I20.gz43_209267 |
| M00042914D:B10 | ES 171 | 649852    | 1574.I22.gz43_209299 |
| M00042915A:E06 | ES 171 | 482043    | 1574.J05.gz43_209028 |
| M00042915A:G10 | ES 171 | 651051    | 1574.J06.gz43_209044 |
| M00042915C:E05 | ES 171 | 639923    | 1574.J12.gz43_209140 |
| M00042915D:A11 | ES 171 | 650527    | 1574.J15.gz43_209188 |
| M00042915D:D06 | ES 171 | 642151    | 1574.J17.gz43_209220 |
| M00042915D:E03 | ES 171 | 643940    | 1574.J18.gz43_209236 |
| M00054791A:G04 | ES 171 | 646404    | 1574.J21.gz43_209284 |
| M00054791B:C09 | ES 171 | 446974    | 1574.J24.gz43_209332 |
| M00054792B:A03 | ES 171 | 648159    | 1574.K18.gz43_209237 |
| M00054793C:C01 | ES 171 | 538237    | 1574.L07.gz43_209062 |
| M00054793C:D11 | ES 171 | 413767    | 1574.L11.gz43_209126 |
| M00054793D:H11 | ES 171 | 640306    | 1574.L13.gz43_209158 |
| M00054794B:F09 | ES 171 | 284269    | 1574.L23.gz43_209318 |
| M00054794C:G11 | ES 171 | 450506    | 1574.M06.gz43_209047 |
| M00054794D:D02 | ES 171 | 474298    | 1574.M09.gz43_209095 |
| M00054794D:D08 | ES 171 | 646568    | 1574.M10.gz43_209111 |
| M00054795A:A08 | ES 171 | 640181    | 1574.M16.gz43_209207 |
| M00054796B:A01 | ES 171 | 639391    | 1574.N04.gz43_209016 |
| M00054796B:C08 | ES 171 | 641525    | 1574.N05.gz43_209032 |
| M00054797C:F03 | ES 171 | 644789    | 1574.N20.gz43_209272 |
| M00054797D:F01 | ES 171 | 472101    | 1574.O01.gz43_208969 |
| M00054798B:A01 | ES 171 | 453572    | 1574.O06.gz43_209049 |
| M00054798D:A12 | ES 171 | 641315    | 1574.O15.gz43_209193 |
| M00054798D:F01 | ES 171 | 650773    | 1574.O17.gz43_209225 |
| M00054799C:G11 | ES 171 | 641875    | 1574.P02.gz43_208986 |
| M00054799D:H02 | ES 171 | 645223    | 1574.P05.gz43_209034 |
| M00054800B:C06 | ES 171 | 639787    | 1574.P10.gz43_209114 |
| M00054800B:C11 | ES 171 | 513262    | 1574.P12.gz43_209146 |
| M00054800B:E08 | ES 171 | 474298    | 1574.P15.gz43_209194 |
| M00054800D:D08 | ES 171 | 639901    | 1574.P23.gz43_209322 |
| M00054800D:F08 | ES 171 | 513248    | 1575.A01.gz43_209339 |
| M00054911A:C08 | ES 171 | 549699    | 1575.A05.gz43_209403 |
| M00054911A:G01 | ES 171 | 559776    | 1575.A10.gz43_209483 |
| M00054911A:H06 | ES 171 | 528616    | 1575.A13.gz43_209531 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054911B:E10 | ES 171 | 639992    | 1575.A15.gz43_209563 |
| M00054911D:D03 | ES 171 | 41878     | 1575.B02.gz43_209356 |
| M00054912A:H08 | ES 171 | 646949    | 1575.B05.gz43_209404 |
| M00054912B:C05 | ES 171 | 589098    | 1575.B08.gz43_209452 |
| M00054912C:C01 | ES 171 | 641057    | 1575.B13.gz43_209532 |
| M00054912D:F11 | ES 171 | 182437    | 1575.B19.gz43_209628 |
| M00054912D:G01 | ES 171 | 417130    | 1575.B20.gz43_209644 |
| M00054912D:G04 | ES 171 | 640230    | 1575.B21.gz43_209660 |
| M00054913A:B12 | ES 171 | 377855    | 1575.B24.gz43_209708 |
| M00054913C:G03 | ES 171 | 451811    | 1575.C12.gz43_209517 |
| M00054914C:D12 | ES 171 | 447246    | 1575.D04.gz43_209390 |
| M00054914D:G07 | ES 171 | 467381    | 1575.D09.gz43_209470 |
| M00054915A:G03 | ES 171 | 413767    | 1575.D13.gz43_209534 |
| M00054915D:B08 | ES 171 | 452220    | 1575.D21.gz43_209662 |
| M00054915D:D05 | ES 171 | 646293    | 1575.D22.gz43_209678 |
| M00054915D:E07 | ES 171 | 468109    | 1575.D24.gz43_209710 |
| M00054916A:A05 | ES 171 | 649872    | 1575.E02.gz43_209359 |
| M00054916A:E05 | ES 171 | 639256    | 1575.E05.gz43_209407 |
| M00054916A:F10 | ES 171 | 639394    | 1575.E06.gz43_209423 |
| M00054916B:E02 | ES 171 | 648664    | 1575.E11.gz43_209503 |
| M00054916C:C04 | ES 171 | 545980    | 1575.E13.gz43_209535 |
| M00054917A:F07 | ES 171 | 473854    | 1575.E22.gz43_209679 |
| M00054917B:A05 | ES 171 | 648609    | 1575.E23.gz43_209695 |
| M00054917B:F01 | ES 171 | 649082    | 1575.F03.gz43_209376 |
| M00054917C:D03 | ES 171 | 643843    | 1575.F08.gz43_209456 |
| M00054917C:F03 | ES 171 | 648532    | 1575.F10.gz43_209488 |
| M00054917D:A03 | ES 171 | 647991    | 1575.F14.gz43_209552 |
| M00054917D:A12 | ES 171 | 644692    | 1575.F16.gz43_209584 |
| M00054917D:D12 | ES 171 | 639662    | 1575.F18.gz43_209616 |
| M00054917D:E05 | ES 171 | 639255    | 1575.F19.gz43_209632 |
| M00054917D:H02 | ES 171 | 648532    | 1575.F23.gz43_209696 |
| M00054918A:D02 | ES 171 | 649506    | 1575.G02.gz43_209361 |
| M00054918A:F09 | ES 171 | 553100    | 1575.G04.gz43_209393 |
| M00054918B:H01 | ES 171 | 449861    | 1575.G10.gz43_209489 |
| M00054918B:H08 | ES 171 | 645252    | 1575.G11.gz43_209505 |
| M00054918D:C03 | ES 171 | 456923    | 1575.G15.gz43_209569 |
| M00054918D:C11 | ES 171 | 452204    | 1575.G16.gz43_209585 |
| M00054918D:G02 | ES 171 | 645252    | 1575.G18.gz43_209617 |
| M00054918D:H09 | ES 171 | 468222    | 1575.G19.gz43_209633 |
| M00054919A:H04 | ES 171 | 452845    | 1575.G24.gz43_209713 |
| M00054919C:F06 | ES 171 | 644556    | 1575.H05.gz43_209410 |
| M00054919D:H12 | ES 171 | 642084    | 1575.H14.gz43_209554 |
| M00054920A:A05 | ES 171 | 61616     | 1575.H16.gz43_209586 |
| M00054920A:B07 | ES 171 | 554010    | 1575.H18.gz43_209618 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054920A:C11 | ES 171 | 564440    | 1575.H22.gz43_209682 |
| M00054920B:C04 | ES 171 | 649933    | 1575.I03.gz43_209379 |
| M00054920B:C12 | ES 171 | 500337    | 1575.I05.gz43_209411 |
| M00054920C:A06 | ES 171 | 643843    | 1575.I10.gz43_209491 |
| M00054920C:D05 | ES 171 | 452707    | 1575.I12.gz43_209523 |
| M00054920C:F02 | ES 171 | 649555    | 1575.I15.gz43_209571 |
| M00055426B:B02 | ES 171 | 452986    | 1575.J06.gz43_209428 |
| M00055426C:B12 | ES 171 | 447574    | 1575.J14.gz43_209556 |
| M00055426C:C10 | ES 171 | 649746    | 1575.J15.gz43_209572 |
| M00055426D:F03 | ES 171 | 639144    | 1575.J21.gz43_209668 |
| M00055427A:F01 | ES 171 | 643924    | 1575.K05.gz43_209413 |
| M00055427A:F02 | ES 171 | 654723    | 1575.K06.gz43_209429 |
| M00055427B:E01 | ES 171 | 41141     | 1575.K10.gz43_209493 |
| M00055427B:F06 | ES 171 | 640814    | 1575.K11.gz43_209509 |
| M00055427C:A06 | ES 171 | 504568    | 1575.K13.gz43_209541 |
| M00055427C:E12 | ES 171 | 630269    | 1575.K17.gz43_209605 |
| M00055427C:F07 | ES 171 | 650487    | 1575.K18.gz43_209621 |
| M00055427C:H11 | ES 171 | 468783    | 1575.K19.gz43_209637 |
| M00055427D:E05 | ES 171 | 456420    | 1575.K21.gz43_209669 |
| M00055428A:C02 | ES 171 | 643279    | 1575.L01.gz43_209350 |
| M00055428B:H02 | ES 171 | 645347    | 1575.L05.gz43_209414 |
| M00055428C:G06 | ES 171 | 243722    | 1575.L12.gz43_209526 |
| M00055428D:G12 | ES 171 | 611927    | 1575.L18.gz43_209622 |
| M00055429A:H04 | ES 171 | 639520    | 1575.L22.gz43_209686 |
| M00055429B:B12 | ES 171 | 467989    | 1575.M01.gz43_209351 |
| M00055429B:E12 | ES 171 | 446254    | 1575.M02.gz43_209367 |
| M00055429B:G04 | ES 171 | 639444    | 1575.M03.gz43_209383 |
| M00055429B:H02 | ES 171 | 447254    | 1575.M04.gz43_209399 |
| M00055429D:G07 | ES 171 | 584071    | 1575.M11.gz43_209511 |
| M00055430B:E08 | ES 171 | 495143    | 1575.M16.gz43_209591 |
| M00055430B:H02 | ES 171 | 560700    | 1575.M19.gz43_209639 |
| M00055430C:G11 | ES 171 | 452293    | 1575.M23.gz43_209703 |
| M00055430D:F04 | ES 171 | 650184    | 1575.N01.gz43_209352 |
| M00055431A:E01 | ES 171 | 451994    | 1575.N05.gz43_209416 |
| M00055431A:H05 | ES 171 | 645344    | 1575.N07.gz43_209448 |
| M00055431B:A01 | ES 171 | 570812    | 1575.N09.gz43_209480 |
| M00055431C:H08 | ES 171 | 639523    | 1575.N15.gz43_209576 |
| M00055432A:A03 | ES 171 | 446495    | 1575.N19.gz43_209640 |
| M00055432A:D05 | ES 171 | 639150    | 1575.N21.gz43_209672 |
| M00055432B:B04 | ES 171 | 642073    | 1575.N23.gz43_209704 |
| M00055432B:H02 | ES 171 | 641542    | 1575.O02.gz43_209369 |
| M00055432C:D12 | ES 171 | 447913    | 1575.O05.gz43_209417 |
| M00055432C:F01 | ES 171 | 645162    | 1575.O07.gz43_209449 |
| M00055432D:H12 | ES 171 | 655551    | 1575.O15.gz43_209577 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055433A:B07 | ES 171 | 644371    | 1575.O16.gz43_209593 |
| M00055433A:B08 | ES 171 | 446932    | 1575.O17.gz43_209609 |
| M00055433A:C02 | ES 171 | 641925    | 1575.O18.gz43_209625 |
| M00055433A:E04 | ES 171 | 649195    | 1575.O22.gz43_209689 |
| M00055433C:A11 | ES 171 | 638758    | 1575.O24.gz43_209721 |
| M00055433D:A09 | ES 171 | 651211    | 1575.P02.gz43_209370 |
| M00055433D:C07 | ES 171 | 458734    | 1575.P04.gz43_209402 |
| M00055433D:F06 | ES 171 | 492242    | 1575.P06.gz43_209434 |
| M00055434A:A03 | ES 171 | 647109    | 1575.P08.gz43_209466 |
| M00055434C:B11 | ES 171 | 651020    | 1575.P18.gz43_209626 |
| M00055434D:B06 | ES 171 | 640369    | 1575.P21.gz43_209674 |
| M00055434D:E09 | ES 171 | 57183     | 1575.P22.gz43_209690 |
| M00055435B:C09 | ES 171 | 639829    | 1576.A04.gz43_209771 |
| M00055435C:E12 | ES 171 | 640055    | 1576.A08.gz43_209835 |
| M00055435D:G11 | ES 171 | 639287    | 1576.A13.gz43_209915 |
| M00055436A:E04 | ES 171 | 626061    | 1576.A15.gz43_209947 |
| M00055436B:B06 | ES 171 | 639711    | 1576.A19.gz43_210011 |
| M00055436B:B09 | ES 171 | 454409    | 1576.A20.gz43_210027 |
| M00055437D:B06 | ES 171 | 466092    | 1576.B17.gz43_209980 |
| M00055439B:B07 | ES 171 | 640522    | 1576.C21.gz43_210045 |
| M00055439B:C10 | ES 171 | 450199    | 1576.C23.gz43_210077 |
| M00055439D:E08 | ES 171 | 648506    | 1576.D11.gz43_209886 |
| M00055440D:D02 | ES 171 | 653616    | 1576.E09.gz43_209855 |
| M00055441A:G07 | ES 171 | 640734    | 1576.E16.gz43_209967 |
| M00055441C:H06 | ES 171 | 640230    | 1576.F03.gz43_209760 |
| M00055443D:G04 | ES 171 | 649288    | 1576.G13.gz43_209921 |
| M00055444D:C05 | ES 171 | 639750    | 1576.H03.gz43_209762 |
| M00055446B:A12 | ES 171 | 484145    | 1576.I05.gz43_209795 |
| M00055446B:D08 | ES 171 | 639928    | 1576.I08.gz43_209843 |
| M00055450B:G07 | ES 171 | 526606    | 1576.L08.gz43_209846 |
| M00055451B:D08 | ES 171 | 446439    | 1576.M09.gz43_209863 |
| M00055451B:D12 | ES 171 | 456125    | 1576.M10.gz43_209879 |
| M00055451C:B08 | ES 171 | 624440    | 1576.M12.gz43_209911 |
| M00055451C:E10 | ES 171 | 639786    | 1576.M14.gz43_209943 |
| M00055453D:E12 | ES 171 | 560791    | 1576.O12.gz43_209913 |
| M00055455B:G12 | ES 171 | 479051    | 1576.P24.gz43_210106 |
| M00055456A:B03 | ES 171 | 559369    | 1585.A06.gz43_210283 |
| M00055456A:F01 | ES 171 | 642478    | 1585.A10.gz43_210347 |
| M00055456B:G08 | ES 171 | 641645    | 1585.A22.gz43_210539 |
| M00055456C:A10 | ES 171 | 466440    | 1585.B02.gz43_210220 |
| M00055456C:G04 | ES 171 | 484126    | 1585.B06.gz43_210284 |
| M00055456D:E06 | ES 171 | 452202    | 1585.B13.gz43_210396 |
| M00055456D:G04 | ES 171 | 639932    | 1585.B14.gz43_210412 |
| M00055457D:F09 | ES 171 | 650605    | 1585.B23.gz43_210556 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055458B:B04 | ES 171 | 648123    | 1585.C02.gz43_210221 |
| M00055458C:G02 | ES 171 | 643843    | 1585.C11.gz43_210365 |
| M00055458D:F04 | ES 171 | 640997    | 1585.C16.gz43_210445 |
| M00055459B:A02 | ES 171 | 641467    | 1585.C22.gz43_210541 |
| M00055460A:D01 | ES 171 | 640662    | 1585.D14.gz43_210414 |
| M00055460B:G06 | ES 171 | 598589    | 1585.E03.gz43_210239 |
| M00055460C:C12 | ES 171 | 640561    | 1585.E06.gz43_210287 |
| M00055460C:D10 | ES 171 | 592346    | 1585.E07.gz43_210303 |
| M00055460C:G09 | ES 171 | 592346    | 1585.E11.gz43_210367 |
| M00055460D:B06 | ES 171 | 641066    | 1585.E15.gz43_210431 |
| M00055461A:A06 | ES 171 | 643991    | 1585.E23.gz43_210559 |
| M00055461A:H03 | ES 171 | 447863    | 1585.F03.gz43_210240 |
| M00055461C:E05 | ES 171 | 640792    | 1585.F13.gz43_210400 |
| M00055461D:C09 | ES 171 | 607422    | 1585.F17.gz43_210464 |
| M00055462A:A09 | ES 171 | 640368    | 1585.F22.gz43_210544 |
|                |        |           |                      |
| M00055462C:A11 | ES 172 | 640400    | 1585.G12.gz43_210385 |
| M00055462C:C03 | ES 172 | 598589    | 1585.G14.gz43_210417 |
| M00055462D:H12 | ES 172 | 412416    | 1585.G22.gz43_210545 |
| M00055463A:A11 | ES 172 | 398061    | 1585.G23.gz43_210561 |
| M00055463D:G01 | ES 172 | 544461    | 1585.H09.gz43_210338 |
| M00055464B:E06 | ES 172 | 640913    | 1585.H13.gz43_210402 |
| M00055464B:E11 | ES 172 | 556654    | 1585.H14.gz43_210418 |
| M00055464B:G03 | ES 172 | 664711    | 1585.H15.gz43_210434 |
| M00055464D:A04 | ES 172 | 661194    | 1585.H19.gz43_210498 |
| M00055464D:F08 | ES 172 | 650914    | 1585.H22.gz43_210546 |
| M00055465A:C05 | ES 172 | 651038    | 1585.I01.gz43_210211 |
| M00055465D:F12 | ES 172 | 639607    | 1585.I13.gz43_210403 |
| M00055466A:C05 | ES 172 | 549611    | 1585.I15.gz43_210435 |
| M00055466C:A01 | ES 172 | 559343    | 1585.I23.gz43_210563 |
| M00055467A:A07 | ES 172 | 555820    | 1585.J07.gz43_210308 |
| M00055467D:A01 | ES 172 | 559549    | 1585.J20.gz43_210516 |
| M00055467D:C10 | ES 172 | 51939     | 1585.J22.gz43_210548 |
| M00055467D:G08 | ES 172 | 505933    | 1585.J24.gz43_210580 |
| M00055468A:A05 | ES 172 | 646318    | 1585.K02.gz43_210229 |
| M00055468C:B07 | ES 172 | 639726    | 1585.K16.gz43_210453 |
| M00055469A:D08 | ES 172 | 640068    | 1585.K24.gz43_210581 |
| M00055469B:A06 | ES 172 | 553402    | 1585.L04.gz43_210262 |
| M00055469C:F09 | ES 172 | 645201    | 1585.L12.gz43_210390 |
| M00055470C:F03 | ES 172 | 562067    | 1585.M07.gz43_210311 |
| M00055470D:F12 | ES 172 | 640293    | 1585.M12.gz43_210391 |
| M00055491A:H01 | ES 172 | 584745    | 1585.M17.gz43_210471 |
| M00055492A:D03 | ES 172 | 639136    | 1585.N04.gz43_210264 |
| M00055492A:H06 | ES 172 | 646303    | 1585.N10.gz43_210360 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055492C:H07 | ES 172 | 646318    | 1585.N22.gz43_210552 |
| M00055492D:B08 | ES 172 | 474821    | 1585.N24.gz43_210584 |
| M00055493C:B06 | ES 172 | 556551    | 1585.O12.gz43_210393 |
| M00055493D:B07 | ES 172 | 555193    | 1585.O14.gz43_210425 |
| M00055493D:D12 | ES 172 | 650353    | 1585.O16.gz43_210457 |
| M00055494A:A06 | ES 172 | 645117    | 1585.O18.gz43_210489 |
| M00055494C:G10 | ES 172 | 562236    | 1585.P05.gz43_210282 |
| M00055494C:G11 | ES 172 | 558839    | 1585.P06.gz43_210298 |
| M00055495A:D11 | ES 172 | 642415    | 1585.P12.gz43_210394 |
| M00055495C:F03 | ES 172 | 237288    | 1585.P22.gz43_210554 |
| M00055516B:E11 | ES 172 | 552783    | 1587.A04.gz43_211407 |
| M00055517A:D09 | ES 172 | 650161    | 1587.A16.gz43_211599 |
| M00055517C:H07 | ES 172 | 492483    | 1587.B02.gz43_211376 |
| M00055517D:D09 | ES 172 | 446984    | 1587.B06.gz43_211440 |
| M00055517D:D11 | ES 172 | 290226    | 1587.B07.gz43_211456 |
| M00055519A:C01 | ES 172 | 558785    | 1587.B23.gz43_211712 |
| M00055519A:F08 | ES 172 | 234606    | 1587.C01.gz43_211361 |
| M00055519A:H01 | ES 172 | 644051    | 1587.C03.gz43_211393 |
| M00055520B:D11 | ES 172 | 590218    | 1587.D04.gz43_211410 |
| M00055520B:E04 | ES 172 | 481220    | 1587.D05.gz43_211426 |
| M00055521C:B08 | ES 172 | 597780    | 1587.E01.gz43_211363 |
| M00055521C:B09 | ES 172 | 638943    | 1587.E02.gz43_211379 |
| M00055521C:C08 | ES 172 | 639056    | 1587.E03.gz43_211395 |
| M00055521C:D02 | ES 172 | 559324    | 1587.E04.gz43_211411 |
| M00055522C:F06 | ES 172 | 561202    | 1587.F04.gz43_211412 |
| M00055523C:F05 | ES 172 | 551518    | 1587.F21.gz43_211684 |
| M00055524B:B08 | ES 172 | 640419    | 1587.G08.gz43_211477 |
| M00055524B:D11 | ES 172 | 648747    | 1587.G10.gz43_211509 |
| M00055528A:E08 | ES 172 | 641615    | 1587.J11.gz43_211528 |
| M00055528D:B02 | ES 172 | 645544    | 1587.K05.gz43_211433 |
| M00055528D:H07 | ES 172 | 649932    | 1587.K13.gz43_211561 |
| M00055529D:D05 | ES 172 | 643723    | 1587.L03.gz43_211402 |
| M00055529D:D11 | ES 172 | 646711    | 1587.L04.gz43_211418 |
| M00055529D:G03 | ES 172 | 555326    | 1587.L06.gz43_211450 |
| M00055530A:C07 | ES 172 | 649149    | 1587.L09.gz43_211498 |
| M00055531B:D10 | ES 172 | 639132    | 1587.M04.gz43_211419 |
| M00055531B:E05 | ES 172 | 650617    | 1587.M05.gz43_211435 |
| M00055531C:C04 | ES 172 | 644479    | 1587.M10.gz43_211515 |
| M00055531D:E06 | ES 172 | 639213    | 1587.M13.gz43_211563 |
| M00055532C:G08 | ES 172 | 639459    | 1587.N03.gz43_211404 |
| M00055532D:A12 | ES 172 | 207552    | 1587.N04.gz43_211420 |
| M00055533B:B11 | ES 172 | 641216    | 1587.N15.gz43_211596 |
| M00055533D:G02 | ES 172 | 116869    | 1587.O04.gz43_211421 |
| M00055534A:E06 | ES 172 | 194095    | 1587.O05.gz43_211437 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055535B:A11 | ES 172 | 639826    | 1587.P03.gz43_211406 |
| M00055535C:A03 | ES 172 | 634409    | 1587.P07.gz43_211470 |
| M00055535C:E08 | ES 172 | 640072    | 1587.P10.gz43_211518 |
| M00055536B:H11 | ES 172 | 649390    | 1588.A03.gz43_217281 |
| M00055536D:D12 | ES 172 | 447869    | 1588.A07.gz43_217345 |
| M00055537C:A01 | ES 172 | 552001    | 1588.A11.gz43_211923 |
| M00055537C:A01 | ES 172 | 552001    | 1588.A11.gz43_217409 |
| M00055537C:E04 | ES 172 | 451671    | 1588.A15.gz43_217473 |
| M00055538A:C05 | ES 172 | 419706    | 1588.A18.gz43_212035 |
| M00055538B:G09 | ES 172 | 639461    | 1588.A21.gz43_217569 |
| M00055538C:E04 | ES 172 | 642631    | 1588.B02.gz43_211780 |
| M00055538D:D12 | ES 172 | 649335    | 1588.B06.gz43_211844 |
| M00055538D:D12 | ES 172 | 649335    | 1588.B06.gz43_217330 |
| M00055538D:F12 | ES 172 | 640089    | 1588.B09.gz43_211892 |
| M00055538D:H07 | ES 172 | 648206    | 1588.B11.gz43_211924 |
| M00055540D:G11 | ES 172 | 403419    | 1588.C19.gz43_217539 |
| M00055541C:D02 | ES 172 | 643277    | 1588.D05.gz43_211830 |
| M00055542B:B11 | ES 172 | 453606    | 1588.D17.gz43_212022 |
| M00055542B:B11 | ES 172 | 453606    | 1588.D17.gz43_217508 |
| M00055542C:B02 | ES 172 | 451361    | 1588.D21.gz43_217572 |
| M00055542C:D07 | ES 172 | 639114    | 1588.D22.gz43_212102 |
| M00055542C:H05 | ES 172 | 641031    | 1588.E02.gz43_217269 |
| M00055543B:A06 | ES 172 | 568331    | 1588.E15.gz43_211991 |
| M00055543C:B09 | ES 172 | 638917    | 1588.E16.gz43_217493 |
| M00055543D:H01 | ES 172 | 452342    | 1588.F01.gz43_211768 |
| M00055543D:H03 | ES 172 | 639543    | 1588.F02.gz43_211784 |
| M00055544A:A07 | ES 172 | 473701    | 1588.F03.gz43_211800 |
| M00055544C:A01 | ES 172 | 648748    | 1588.F13.gz43_211960 |
| M00055544C:B07 | ES 172 | 562414    | 1588.F15.gz43_211992 |
| M00055545A:C01 | ES 172 | 644173    | 1588.F23.gz43_217606 |
| M00055545B:A04 | ES 172 | 562274    | 1588.G03.gz43_211801 |
| M00055545B:C01 | ES 172 | 556867    | 1588.G05.gz43_211833 |
| M00055545C:D09 | ES 172 | 639099    | 1588.G13.gz43_211961 |
| M00055545D:B06 | ES 172 | 505042    | 1588.G16.gz43_212009 |
| M00055545D:C03 | ES 172 | 642414    | 1588.G17.gz43_217511 |
| M00055546B:H03 | ES 172 | 466092    | 1588.H02.gz43_217272 |
| M00055546C:B01 | ES 172 | 562468    | 1588.H04.gz43_217304 |
| M00055546C:F11 | ES 172 | 32812     | 1588.H09.gz43_211898 |
| M00055547A:H11 | ES 172 | 649564    | 1588.H18.gz43_217528 |
| M00055547B:C05 | ES 172 | 557983    | 1588.H21.gz43_212090 |
| M00055547B:G09 | ES 172 | 648494    | 1588.H24.gz43_217624 |
| M00055547C:B01 | ES 172 | 448673    | 1588.I02.gz43_211787 |
| M00055547C:B07 | ES 172 | 650982    | 1588.I04.gz43_217305 |
| M00055547D:G06 | ES 172 | 641401    | 1588.I15.gz43_217481 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055548A:D07 | ES 172 | 529799    | 1588.I18.gz43_217529 |
| M00055548A:F04 | ES 172 | 449891    | 1588.I22.gz43_217593 |
| M00055548B:A03 | ES 172 | 638837    | 1588.J02.gz43_217274 |
| M00055548B:C03 | ES 172 | 646159    | 1588.J06.gz43_211852 |
| M00055548B:G06 | ES 172 | 639480    | 1588.J09.gz43_211900 |
| M00055548B:G06 | ES 172 | 639480    | 1588.J09.gz43_217386 |
| M00055548C:E05 | ES 172 | 512634    | 1588.J13.gz43_211964 |
| M00055548C:G09 | ES 172 | 639295    | 1588.J17.gz43_212028 |
| M00055549A:B04 | ES 172 | 442531    | 1588.J22.gz43_212108 |
| M00055549C:E10 | ES 172 | 639316    | 1588.K08.gz43_211885 |
| M00055549C:E10 | ES 172 | 639316    | 1588.K08.gz43_217371 |
| M00055549C:F08 | ES 172 | 453768    | 1588.K10.gz43_217403 |
| M00055550A:C07 | ES 172 | 645365    | 1588.K19.gz43_212061 |
| M00055550C:E07 | ES 172 | 450123    | 1588.L05.gz43_211838 |
| M00055550C:F03 | ES 172 | 645938    | 1588.L07.gz43_211870 |
| M00055550D:D02 | ES 172 | 457146    | 1588.L11.gz43_217420 |
| M00055551A:A12 | ES 172 | 650521    | 1588.L18.gz43_212046 |
| M00055551C:C08 | ES 172 | 551662    | 1588.M07.gz43_217357 |
| M00055552C:G03 | ES 172 | 447379    | 1588.M20.gz43_217565 |
| M00055553A:D08 | ES 172 | 406436    | 1588.N01.gz43_217262 |
| M00055553A:F11 | ES 172 | 645891    | 1588.N02.gz43_211792 |
| M00055553A:F11 | ES 172 | 645891    | 1588.N02.gz43_217278 |
| M00055553A:H08 | ES 172 | 420702    | 1588.N04.gz43_211824 |
| M00055553B:D05 | ES 172 | 554789    | 1588.N06.gz43_217342 |
| M00055553B:H04 | ES 172 | 644242    | 1588.N09.gz43_211904 |
| M00055553C:D06 | ES 172 | 644723    | 1588.N11.gz43_211936 |
| M00055553C:H12 | ES 172 | 641078    | 1588.N15.gz43_212000 |
| M00055553D:C07 | ES 172 | 640747    | 1588.N16.gz43_212016 |
| M00055553D:E06 | ES 172 | 645781    | 1588.N18.gz43_217534 |
| M00055554C:B04 | ES 172 | 644012    | 1588.O05.gz43_217327 |
| M00055554D:F01 | ES 172 | 377692    | 1588.O11.gz43_217423 |
| M00055555D:B05 | ES 172 | 639395    | 1588.O22.gz43_217599 |
| M00055556A:A04 | ES 172 | 646350    | 1588.P05.gz43_211842 |
| M00055556A:E07 | ES 172 | 649099    | 1588.P06.gz43_211858 |
| M00055556A:E07 | ES 172 | 649099    | 1588.P06.gz43_217344 |
| M00055556C:H09 | ES 172 | 701221    | 1588.P14.gz43_217472 |
| M00055557A:A04 | ES 172 | 447023    | 1588.P18.gz43_217536 |
| M00055557A:C11 | ES 172 | 639425    | 1588.P21.gz43_212098 |
| M00055557B:B10 | ES 172 | 477064    | 1588.P24.gz43_217632 |
| M00055557B:F07 | ES 172 | 509798    | 1597.A03.gz43_212179 |
| M00055558B:G11 | ES 172 | 637966    | 1597.A16.gz43_212387 |
| M00055558D:C08 | ES 172 | 460666    | 1597.A21.gz43_212467 |
| M00055558D:D07 | ES 172 | 645913    | 1597.A23.gz43_212499 |
| M00055559A:D06 | ES 172 | 469731    | 1597.B06.gz43_212228 |

[illegible][illegible]

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055576A:F07 | ES 173 | 649349    | 1597.N23.gz43_212512 |
| M00055576D:E09 | ES 173 | 643162    | 1597.O12.gz43_212337 |
| M00055577A:G09 | ES 173 | 640851    | 1597.O20.gz43_212465 |
| M00055577B:F05 | ES 173 | 648483    | 1597.O24.gz43_212529 |
| M00055577C:G02 | ES 173 | 639698    | 1597.P05.gz43_212226 |
| M00055578B:D05 | ES 173 | 362177    | 1597.P12.gz43_212338 |
| M00055578C:F11 | ES 173 | 668852    | 1597.P22.gz43_212498 |
| M00055578D:E11 | ES 173 | 561602    | 1597.P24.gz43_212530 |
| M00055579C:D04 | ES 173 | 641191    | 1598.A07.gz43_212627 |
| M00055579D:C11 | ES 173 | 459521    | 1598.A11.gz43_212691 |
| M00055579D:G09 | ES 173 | 641957    | 1598.A13.gz43_212723 |
| M00055580B:B08 | ES 173 | 641425    | 1598.A17.gz43_212787 |
| M00055581A:C02 | ES 173 | 640025    | 1598.B02.gz43_212548 |
| M00055581C:A01 | ES 173 | 648580    | 1598.B04.gz43_212580 |
| M00055581C:B08 | ES 173 | 647360    | 1598.B05.gz43_212596 |
| M00055582B:A06 | ES 173 | 648159    | 1598.B15.gz43_212756 |
| M00055583A:A05 | ES 173 | 641262    | 1598.C05.gz43_212597 |
| M00055583C:A01 | ES 173 | 86311     | 1598.C18.gz43_212805 |
| M00055584A:G11 | ES 173 | 641925    | 1598.D06.gz43_212614 |
| M00055584B:B01 | ES 173 | 639070    | 1598.D07.gz43_212630 |
| M00055585A:E12 | ES 173 | 651000    | 1598.D21.gz43_212854 |
| M00055585B:F01 | ES 173 | 415538    | 1598.E02.gz43_212551 |
| M00055585C:F05 | ES 173 | 449247    | 1598.E06.gz43_212615 |
| M00055586A:F05 | ES 173 | 639116    | 1598.E11.gz43_212695 |
| M00055586C:A06 | ES 173 | 553087    | 1598.E21.gz43_212855 |
| M00055586D:G07 | ES 173 | 645707    | 1598.F05.gz43_212600 |
| M00055588A:C03 | ES 173 | 639444    | 1598.G05.gz43_212601 |
| M00055588B:H11 | ES 173 | 140909    | 1598.G11.gz43_212697 |
| M00055588C:G09 | ES 173 | 509973    | 1598.G15.gz43_212761 |
| M00055589A:B06 | ES 173 | 646914    | 1598.G21.gz43_212857 |
| M00055589B:E08 | ES 173 | 644572    | 1598.H03.gz43_212570 |
| M00055589B:H02 | ES 173 | 642008    | 1598.H04.gz43_212586 |
| M00055590A:B03 | ES 173 | 464091    | 1598.H11.gz43_212698 |
| M00055590A:E01 | ES 173 | 645264    | 1598.H15.gz43_212762 |
| M00055590D:G07 | ES 173 | 635439    | 1598.I11.gz43_212699 |
| M00055591A:B08 | ES 173 | 641472    | 1598.I12.gz43_212715 |
| M00055591D:A07 | ES 173 | 556868    | 1598.J04.gz43_212588 |
| M00055591D:E08 | ES 173 | 512521    | 1598.J05.gz43_212604 |
| M00055592B:C10 | ES 173 | 641467    | 1598.J12.gz43_212716 |
| M00055593A:F08 | ES 173 | 641838    | 1598.K09.gz43_212669 |
| M00055593C:D08 | ES 173 | 638941    | 1598.K14.gz43_212749 |
| M00055594B:A01 | ES 173 | 446371    | 1598.K21.gz43_212861 |
| M00055594C:B03 | ES 173 | 470769    | 1598.L04.gz43_212590 |
| M00055594C:F11 | ES 173 | 646590    | 1598.L06.gz43_212622 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055594D:F07 | ES 173 | 455864    | 1598.L12.gz43_212718 |
| M00055595C:F12 | ES 173 | 447272    | 1598.M01.gz43_212543 |
| M00055595C:G03 | ES 173 | 478229    | 1598.M02.gz43_212559 |
| M00055595D:C04 | ES 173 | 554273    | 1598.M04.gz43_212591 |
| M00055596A:C02 | ES 173 | 144626    | 1598.M08.gz43_212655 |
| M00055596A:E07 | ES 173 | 640826    | 1598.M10.gz43_212687 |
| M00055596B:D03 | ES 173 | 458979    | 1598.M16.gz43_212783 |
| M00055597B:B04 | ES 173 | 463028    | 1598.N05.gz43_212608 |
| M00055597D:B05 | ES 173 | 641440    | 1598.N09.gz43_212672 |
| M00055597D:E10 | ES 173 | 564440    | 1598.N11.gz43_212704 |
| M00055599D:C08 | ES 173 | 640298    | 1598.N23.gz43_212896 |
| M00055600A:C04 | ES 173 | 507188    | 1598.O07.gz43_212641 |
| M00055600C:C02 | ES 173 | 647312    | 1598.O17.gz43_212801 |
| M00055600D:B02 | ES 173 | 515931    | 1598.O19.gz43_212833 |
| M00055601B:D12 | ES 173 | 640695    | 1598.P05.gz43_212610 |
| M00055601B:H02 | ES 173 | 641191    | 1598.P07.gz43_212642 |
| M00055601C:C11 | ES 173 | 553925    | 1598.P10.gz43_212690 |
| M00055602A:D04 | ES 173 | 640634    | 1598.P20.gz43_212850 |
| M00055602B:B10 | ES 173 | 201904    | 1599.A01.gz43_212923 |
| M00055602B:B12 | ES 173 | 644764    | 1599.A03.gz43_212955 |
| M00055602D:G08 | ES 173 | 643906    | 1599.A15.gz43_213147 |
| M00055603D:A09 | ES 173 | 641338    | 1599.B01.gz43_212924 |
| M00055604D:E07 | ES 173 | 643279    | 1599.B09.gz43_213052 |
| M00055604D:F05 | ES 173 | 559380    | 1599.B10.gz43_213068 |
| M00055606A:B11 | ES 173 | 554833    | 1599.B19.gz43_213212 |
| M00055606A:F09 | ES 173 | 461524    | 1599.B21.gz43_213244 |
| M00055606C:F04 | ES 173 | 641839    | 1599.C09.gz43_213053 |
| M00055606D:C05 | ES 173 | 641542    | 1599.C12.gz43_213101 |
| M00055608C:E03 | ES 173 | 641680    | 1599.D10.gz43_213070 |
| M00055608C:G11 | ES 173 | 607715    | 1599.D15.gz43_213150 |
| M00055609B:D10 | ES 173 | 460929    | 1599.E01.gz43_212927 |
| M00055609B:F10 | ES 173 | 640930    | 1599.E03.gz43_212959 |
| M00055610B:E04 | ES 173 | 454527    | 1599.F02.gz43_212944 |
| M00055610D:H09 | ES 173 | 639255    | 1599.F09.gz43_213056 |
| M00055611C:E03 | ES 173 | 551896    | 1599.F24.gz43_213296 |
| M00055612A:H05 | ES 173 | 645031    | 1599.G13.gz43_213121 |
| M00055615C:E01 | ES 173 | 640868    | 1599.I08.gz43_213043 |
| M00055615D:C07 | ES 173 | 639703    | 1599.I11.gz43_213091 |
| M00055617A:H12 | ES 173 | 641254    | 1599.J09.gz43_213060 |
| M00055619A:C03 | ES 173 | 213631    | 1599.K12.gz43_213109 |
| M00055619B:H04 | ES 173 | 639480    | 1599.K19.gz43_213221 |
| M00055619C:D06 | ES 173 | 647518    | 1599.K24.gz43_213301 |
| M00055619C:F07 | ES 173 | 640221    | 1599.L01.gz43_212934 |
| M00055619D:A04 | ES 173 | 640382    | 1599.L05.gz43_212998 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055620D:D05 | ES 173 | 640416    | 1599.L17.gz43_213190 |
| M00055621B:G03 | ES 173 | 561626    | 1599.L23.gz43_213286 |
| M00055623D:G05 | ES 173 | 641069    | 1599.N09.gz43_213064 |
| M00055628B:B07 | ES 173 | 607138    | 1599.P21.gz43_213258 |
| M00055629A:D08 | ES 173 | 647266    | 1600.A15.gz43_213531 |
| M00055629B:G09 | ES 173 | 455075    | 1600.A22.gz43_213643 |
| M00055630B:E09 | ES 173 | 561180    | 1600.B13.gz43_213500 |
| M00055630B:G04 | ES 173 | 645004    | 1600.B15.gz43_213532 |
| M00055632A:B11 | ES 173 | 559423    | 1600.B24.gz43_213676 |
| M00055632D:A06 | ES 173 | 640799    | 1600.C10.gz43_213453 |
| M00055633B:A08 | ES 173 | 634012    | 1600.C21.gz43_213629 |
| M00055633B:G02 | ES 173 | 131348    | 1600.C24.gz43_213677 |
| M00055633D:A02 | ES 173 | 649717    | 1600.D04.gz43_213358 |
| M00055634C:C10 | ES 173 | 446659    | 1600.D21.gz43_213630 |
| M00055634C:F09 | ES 173 | 166041    | 1600.D23.gz43_213662 |
| M00055636A:H12 | ES 173 | 650180    | 1600.E24.gz43_213679 |
| M00055637B:A01 | ES 173 | 642361    | 1600.F24.gz43_213680 |
| M00055637B:H12 | ES 173 | 641253    | 1600.G05.gz43_213377 |
| M00055638A:A10 | ES 173 | 554335    | 1600.G13.gz43_213505 |
| M00055638D:D07 | ES 173 | 639934    | 1600.H02.gz43_213330 |
| M00055638D:E09 | ES 173 | 646695    | 1600.H04.gz43_213362 |
| M00055639D:D03 | ES 173 | 548959    | 1600.I01.gz43_213315 |
| M00055639D:F08 | ES 173 | 640956    | 1600.I03.gz43_213347 |
| M00055640A:G03 | ES 173 | 635965    | 1600.I07.gz43_213411 |
| M00055640B:C01 | ES 173 | 472129    | 1600.I09.gz43_213443 |
| M00055640C:E06 | ES 173 | 557401    | 1600.I12.gz43_213491 |
| M00055640C:F05 | ES 173 | 467381    | 1600.I13.gz43_213507 |
| M00055640C:F08 | ES 173 | 151279    | 1600.I14.gz43_213523 |
| M00055641A:C12 | ES 173 | 562000    | 1600.I19.gz43_213603 |
| M00055642D:A05 | ES 173 | 553516    | 1600.J23.gz43_213668 |
| M00055643A:C01 | ES 173 | 451615    | 1600.K05.gz43_213381 |
| M00055643B:E05 | ES 173 | 642246    | 1600.K11.gz43_213477 |
| M00055643C:G10 | ES 173 | 645261    | 1600.K18.gz43_213589 |
| M00055643D:A05 | ES 173 | 656268    | 1600.K20.gz43_213621 |
| M00055643D:G11 | ES 173 | 561069    | 1600.K24.gz43_213685 |
| M00055644A:D10 | ES 173 | 549124    | 1600.L02.gz43_213334 |
| M00055644A:D12 | ES 173 | 554722    | 1600.L03.gz43_213350 |
| M00055644B:H12 | ES 173 | 379040    | 1600.L07.gz43_213414 |
| M00055645A:C07 | ES 173 | 156097    | 1600.L19.gz43_213606 |
| M00055646C:B04 | ES 173 | 646352    | 1600.M13.gz43_213511 |
| M00055647A:H10 | ES 173 | 446621    | 1600.M19.gz43_213607 |
| M00055647B:A05 | ES 173 | 641210    | 1600.M20.gz43_213623 |
| M00055647C:D02 | ES 173 | 639886    | 1600.N04.gz43_213368 |
| M00055647D:B11 | ES 173 | 467563    | 1600.N11.gz43_213480 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055648B:C01 | ES 173 | 453441    | 1600.N19.gz43_213608 |
| M00055649A:H07 | ES 173 | 640320    | 1600.O11.gz43_213481 |
| M00055649C:F02 | ES 173 | 491368    | 1600.O16.gz43_213561 |
| M00055650A:B05 | ES 173 | 553285    | 1600.O21.gz43_213641 |
| M00055650C:F12 | ES 173 | 640029    | 1600.P09.gz43_213450 |
| M00055651A:D06 | ES 173 | 638779    | 1600.P16.gz43_213562 |
| M00055651A:E06 | ES 173 | 641702    | 1600.P17.gz43_213578 |
| M00055651B:F08 | ES 173 | 458736    | 1600.P20.gz43_213626 |
| M00055651C:E01 | ES 173 | 550515    | 1600.P24.gz43_213690 |
| M00055651C:F07 | ES 173 | 643513    | 1669.A01.gz43_260687 |
| M00055652A:G11 | ES 173 | 554510    | 1669.A07.gz43_260783 |
| M00055652B:B11 | ES 173 | 618998    | 1669.A10.gz43_260831 |
| M00055652B:F12 | ES 173 | 406734    | 1669.A12.gz43_260863 |
| M00055653A:G08 | ES 173 | 649631    | 1669.A24.gz43_261055 |
| M00055653B:C03 | ES 173 | 647333    | 1669.B06.gz43_260768 |
| M00055653B:E12 | ES 173 | 86311     | 1669.B09.gz43_260816 |
| M00055653B:G01 | ES 173 | 644971    | 1669.B10.gz43_260832 |
| M00055653B:G11 | ES 173 | 640259    | 1669.B11.gz43_260848 |
| M00055653D:H02 | ES 173 | 463312    | 1669.B23.gz43_261040 |
| M00055654A:B07 | ES 173 | 462247    | 1669.C01.gz43_260689 |
| M00055654B:G09 | ES 173 | 472226    | 1669.C06.gz43_260769 |
| M00055654C:A05 | ES 173 | 641469    | 1669.C08.gz43_260801 |
| M00055654C:C10 | ES 173 | 638971    | 1669.C09.gz43_260817 |
| M00055654C:D03 | ES 173 | 556488    | 1669.C10.gz43_260833 |
| M00055654D:F02 | ES 173 | 650677    | 1669.C17.gz43_260945 |
| M00055655A:A09 | ES 173 | 642111    | 1669.C18.gz43_260961 |
| M00055655B:B08 | ES 173 | 642411    | 1669.C22.gz43_261025 |
| M00055656A:E09 | ES 173 | 643804    | 1669.D11.gz43_260850 |
| M00055657A:B04 | ES 173 | 450883    | 1669.E08.gz43_260803 |
| M00055659A:A08 | ES 173 | 648773    | 1669.F11.gz43_260852 |
| M00055659C:B10 | ES 173 | 639706    | 1669.F21.gz43_261012 |
| M00055659C:D06 | ES 173 | 639674    | 1669.F24.gz43_261060 |
| M00055660A:A06 | ES 173 | 452687    | 1669.G10.gz43_260837 |
| M00055660A:C05 | ES 173 | 503275    | 1669.G11.gz43_260853 |
| M00055660A:C08 | ES 173 | 643563    | 1669.G12.gz43_260869 |
| M00055660B:H02 | ES 173 | 589483    | 1669.G17.gz43_260949 |
| M00055661B:E07 | ES 173 | 455778    | 1669.H06.gz43_260774 |
| M00055661C:E11 | ES 173 | 658447    | 1669.H12.gz43_260870 |
| M00055662B:F11 | ES 173 | 447585    | 1669.I04.gz43_260743 |
| M00055662C:C11 | ES 173 | 523875    | 1669.I07.gz43_260791 |
| M00055662C:D05 | ES 173 | 645758    | 1669.I08.gz43_260807 |
| M00055662C:D12 | ES 173 | 641379    | 1669.I09.gz43_260823 |
| M00055662C:H06 | ES 173 | 446188    | 1669.I12.gz43_260871 |
| M00055662D:A09 | ES 173 | 639596    | 1669.I15.gz43_260919 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055662D:B07 | ES 173 | 639665    | 1669.I17.gz43_260951 |
| M00055662D:E05 | ES 173 | 640018    | 1669.I20.gz43_260999 |
| M00055662D:F09 | ES 173 | 559575    | 1669.I21.gz43_261015 |
| M00055663A:B02 | ES 173 | 641091    | 1669.I22.gz43_261031 |
| M00055663A:G04 | ES 173 | 640261    | 1669.I24.gz43_261063 |
| M00055663A:H10 | ES 173 | 641658    | 1669.J01.gz43_260696 |
| M00055663B:E02 | ES 173 | 640078    | 1669.J04.gz43_260744 |
| M00055663C:D05 | ES 173 | 658271    | 1669.J07.gz43_260792 |
| M00055663C:F05 | ES 173 | 512521    | 1669.J08.gz43_260808 |
| M00055663D:B05 | ES 173 | 643909    | 1669.J10.gz43_260840 |
| M00055664B:G08 | ES 173 | 640211    | 1669.J16.gz43_260936 |
| M00055665B:A12 | ES 173 | 451906    | 1669.K06.gz43_260777 |
|                |        |           |                      |
| M00055665B:B10 | ES 174 | 465104    | 1669.K07.gz43_260793 |
| M00055665D:F11 | ES 174 | 640179    | 1669.K18.gz43_260969 |
| M00055666A:G04 | ES 174 | 642078    | 1669.K23.gz43_261049 |
| M00055666B:C03 | ES 174 | 448484    | 1669.L07.gz43_260794 |
| M00055666B:E06 | ES 174 | 640678    | 1669.L11.gz43_260858 |
| M00055666C:C11 | ES 174 | 639804    | 1669.L12.gz43_260874 |
| M00055666D:D08 | ES 174 | 639932    | 1669.L16.gz43_260938 |
| M00055667A:B12 | ES 174 | 642332    | 1669.L20.gz43_261002 |
| M00055667A:H10 | ES 174 | 456561    | 1669.L23.gz43_261050 |
| M00055667B:C08 | ES 174 | 639752    | 1669.M01.gz43_260699 |
| M00055667C:F07 | ES 174 | 646894    | 1669.M10.gz43_260843 |
| M00055667D:B01 | ES 174 | 561894    | 1669.M12.gz43_260875 |
| M00055668B:A10 | ES 174 | 550999    | 1669.M19.gz43_260987 |
| M00055668B:B07 | ES 174 | 557401    | 1669.M20.gz43_261003 |
| M00055668B:D05 | ES 174 | 639906    | 1669.M21.gz43_261019 |
| M00055668C:A04 | ES 174 | 642068    | 1669.N02.gz43_260716 |
| M00055668C:F05 | ES 174 | 648340    | 1669.N05.gz43_260764 |
| M00055668D:E11 | ES 174 | 556750    | 1669.N10.gz43_260844 |
| M00055669B:G02 | ES 174 | 648352    | 1669.N18.gz43_260972 |
| M00055669D:B08 | ES 174 | 639743    | 1669.O02.gz43_260717 |
| M00055670A:B04 | ES 174 | 648352    | 1669.O07.gz43_260797 |
| M00055670D:F02 | ES 174 | 641683    | 1669.O17.gz43_260957 |
| M00055671A:H03 | ES 174 | 518569    | 1669.P01.gz43_260702 |
| M00055671B:B02 | ES 174 | 642230    | 1669.P03.gz43_260734 |
| M00055672D:F06 | ES 174 | 640092    | 1670.A08.gz43_261183 |
| M00055673A:E09 | ES 174 | 95617     | 1670.A11.gz43_261231 |
| M00055673B:A04 | ES 174 | 645146    | 1670.A16.gz43_261311 |
| M00055673B:B08 | ES 174 | 639469    | 1670.A18.gz43_261343 |
| M00055673D:C01 | ES 174 | 639805    | 1670.B07.gz43_261168 |
| M00055674A:C11 | ES 174 | 651088    | 1670.B12.gz43_261248 |
| M00055674C:E05 | ES 174 | 645968    | 1670.B21.gz43_261392 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055675A:G03 | ES 174 | 643522    | 1670.C06.gz43_261153 |
| M00055675D:E04 | ES 174 | 650673    | 1670.C14.gz43_261281 |
| M00055676B:D05 | ES 174 | 446242    | 1670.C20.gz43_261377 |
| M00055676D:H07 | ES 174 | 426366    | 1670.D05.gz43_261138 |
| M00055678C:H05 | ES 174 | 289328    | 1670.D14.gz43_261282 |
| M00055679B:E03 | ES 174 | 642321    | 1670.D23.gz43_261426 |
| M00055680B:D09 | ES 174 | 553642    | 1670.E15.gz43_261299 |
| M00055680B:H04 | ES 174 | 647427    | 1670.E17.gz43_261331 |
| M00055680C:E01 | ES 174 | 493622    | 1670.E20.gz43_261379 |
| M00055681A:F02 | ES 174 | 416808    | 1670.E24.gz43_261443 |
| M00055681D:F11 | ES 174 | 642502    | 1670.F18.gz43_261348 |
| M00055682A:B07 | ES 174 | 637966    | 1670.F22.gz43_261412 |
| M00055682C:D06 | ES 174 | 641618    | 1670.G09.gz43_261205 |
| M00055682D:G02 | ES 174 | 641902    | 1670.G19.gz43_261365 |
| M00055683B:D10 | ES 174 | 640645    | 1670.H06.gz43_261158 |
| M00055683C:A03 | ES 174 | 557625    | 1670.H10.gz43_261222 |
| M00055683C:D11 | ES 174 | 644699    | 1670.H14.gz43_261286 |
| M00055683C:H11 | ES 174 | 553921    | 1670.H17.gz43_261334 |
| M00055684B:D06 | ES 174 | 599838    | 1670.I10.gz43_261223 |
| M00055684D:A10 | ES 174 | 506901    | 1670.I18.gz43_261351 |
| M00055685A:E10 | ES 174 | 601137    | 1670.I23.gz43_261431 |
| M00055685A:F02 | ES 174 | 647856    | 1670.I24.gz43_261447 |
| M00055685A:F06 | ES 174 | 447802    | 1670.J02.gz43_261096 |
| M00055685B:E12 | ES 174 | 645909    | 1670.J06.gz43_261160 |
| M00055685D:B06 | ES 174 | 649558    | 1670.J18.gz43_261352 |
| M00055686B:D03 | ES 174 | 641624    | 1670.K06.gz43_261161 |
| M00055686D:E04 | ES 174 | 641726    | 1670.K12.gz43_261257 |
| M00055686D:E10 | ES 174 | 641728    | 1670.K13.gz43_261273 |
| M00055687C:B04 | ES 174 | 554564    | 1670.K24.gz43_261449 |
| M00055687C:B11 | ES 174 | 649284    | 1670.L01.gz43_261082 |
| M00055687C:F01 | ES 174 | 643594    | 1670.L05.gz43_261146 |
| M00055687C:F07 | ES 174 | 639136    | 1670.L06.gz43_261162 |
| M00055688A:A02 | ES 174 | 641287    | 1670.L09.gz43_261210 |
| M00055688A:E04 | ES 174 | 649921    | 1670.L12.gz43_261258 |
| M00055689B:F04 | ES 174 | 446675    | 1670.M05.gz43_261147 |
| M00055689C:B03 | ES 174 | 634122    | 1670.M08.gz43_261195 |
| M00055689C:C03 | ES 174 | 634122    | 1670.M10.gz43_261227 |
| M00055689D:G01 | ES 174 | 567636    | 1670.M18.gz43_261355 |
| M00055691A:D08 | ES 174 | 640826    | 1670.M22.gz43_261419 |
| M00055691B:E07 | ES 174 | 640889    | 1670.N03.gz43_261116 |
| M00055691C:E02 | ES 174 | 646638    | 1670.N06.gz43_261164 |
| M00055691D:B07 | ES 174 | 642644    | 1670.N11.gz43_261244 |
| M00055691D:E04 | ES 174 | 502609    | 1670.N13.gz43_261276 |
| M00055692A:E05 | ES 174 | 561920    | 1670.N18.gz43_261356 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055695D:E01 | ES 174 | 645431    | 1670.P12.gz43_261262 |
| M00055699C:D02 | ES 174 | 41141     | 1671.B11.gz43_261616 |
| M00055700B:E10 | ES 174 | 553985    | 1671.B23.gz43_261808 |
| M00055701A:B04 | ES 174 | 560546    | 1671.C12.gz43_261633 |
| M00055701B:C03 | ES 174 | 642039    | 1671.C17.gz43_261713 |
| M00055702C:D01 | ES 174 | 646028    | 1671.D09.gz43_261586 |
| M00055702C:F11 | ES 174 | 640947    | 1671.D10.gz43_261602 |
| M00055702D:H10 | ES 174 | 605761    | 1671.D11.gz43_261618 |
| M00055704A:D09 | ES 174 | 642062    | 1671.E08.gz43_261571 |
| M00055704B:C04 | ES 174 | 551415    | 1671.E12.gz43_261635 |
| M00055705C:F12 | ES 174 | 471268    | 1671.F17.gz43_261716 |
| M00055705C:G01 | ES 174 | 641876    | 1671.F18.gz43_261732 |
| M00055706B:H12 | ES 174 | 463548    | 1671.G10.gz43_261605 |
| M00055707A:B07 | ES 174 | 649429    | 1671.G14.gz43_261669 |
| M00055707A:E07 | ES 174 | 468316    | 1671.G17.gz43_261717 |
| M00055707A:F11 | ES 174 | 453006    | 1671.G20.gz43_261765 |
| M00055707B:E02 | ES 174 | 640879    | 1671.G22.gz43_261797 |
| M00055709D:G10 | ES 174 | 417259    | 1671.H17.gz43_261718 |
| M00055710B:E04 | ES 174 | 641700    | 1671.H22.gz43_261798 |
| M00055711B:B08 | ES 174 | 561422    | 1671.I07.gz43_261559 |
| M00055711C:A07 | ES 174 | 463368    | 1671.I11.gz43_261623 |
| M00055711D:H12 | ES 174 | 558890    | 1671.I21.gz43_261783 |
| M00055713C:B06 | ES 174 | 455552    | 1671.J08.gz43_261576 |
| M00055713C:D11 | ES 174 | 469688    | 1671.J10.gz43_261608 |
| M00055713C:F12 | ES 174 | 558086    | 1671.J11.gz43_261624 |
| M00055713C:H01 | ES 174 | 446933    | 1671.J12.gz43_261640 |
| M00055715A:D10 | ES 174 | 463368    | 1671.K08.gz43_261577 |
| M00055715C:C11 | ES 174 | 640534    | 1671.K20.gz43_261769 |
| M00055717A:C06 | ES 174 | 644325    | 1671.L10.gz43_261610 |
| M00055717A:H01 | ES 174 | 521888    | 1671.L12.gz43_261642 |
| M00055717B:A03 | ES 174 | 451401    | 1671.L14.gz43_261674 |
| M00055717B:E04 | ES 174 | 421826    | 1671.L17.gz43_261722 |
| M00055717C:B07 | ES 174 | 536415    | 1671.L23.gz43_261818 |
| M00055718A:F01 | ES 174 | 478192    | 1671.M09.gz43_261595 |
| M00055718A:H05 | ES 174 | 640282    | 1671.M10.gz43_261611 |
| M00055718B:H11 | ES 174 | 465589    | 1671.M17.gz43_261723 |
| M00055719A:A06 | ES 174 | 646105    | 1671.N09.gz43_261596 |
| M00055719A:D11 | ES 174 | 557710    | 1671.N12.gz43_261644 |
| M00055719A:G04 | ES 174 | 645505    | 1671.N17.gz43_261724 |
| M00055719A:G12 | ES 174 | 510195    | 1671.N18.gz43_261740 |
| M00055719C:A09 | ES 174 | 640282    | 1671.N23.gz43_261820 |
| M00055720B:D06 | ES 174 | 645344    | 1671.O12.gz43_261645 |
| M00055721A:A07 | ES 174 | 466265    | 1671.O22.gz43_261805 |
| M00055721B:D08 | ES 174 | 642288    | 1671.P07.gz43_261566 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055722A:B05 | ES 174 | 492094    | 1671.P18.gz43_261742 |
| M00055722A:C04 | ES 174 | 600115    | 1671.P21.gz43_261790 |
| M00055722B:A01 | ES 174 | 498194    | 1672.A01.gz43_261841 |
| M00055722B:G12 | ES 174 | 645171    | 1672.A06.gz43_261921 |
| M00055722C:E11 | ES 174 | 650303    | 1672.A12.gz43_262017 |
| M00055722C:F11 | ES 174 | 642491    | 1672.A13.gz43_262033 |
| M00055722D:A07 | ES 174 | 641056    | 1672.A14.gz43_262049 |
| M00055722D:B10 | ES 174 | 460967    | 1672.A17.gz43_262097 |
| M00055722D:E05 | ES 174 | 544797    | 1672.A19.gz43_262129 |
| M00055722D:G12 | ES 174 | 470769    | 1672.A23.gz43_262193 |
| M00055723A:B08 | ES 174 | 556326    | 1672.B03.gz43_261874 |
| M00055723A:C04 | ES 174 | 647688    | 1672.B04.gz43_261890 |
| M00055723A:F04 | ES 174 | 649360    | 1672.B07.gz43_261938 |
| M00055723B:A09 | ES 174 | 642078    | 1672.B11.gz43_262002 |
| M00055723B:C03 | ES 174 | 642197    | 1672.B14.gz43_262050 |
| M00055723B:H08 | ES 174 | 46976     | 1672.B17.gz43_262098 |
| M00055723C:A08 | ES 174 | 648472    | 1672.B18.gz43_262114 |
| M00055723C:B02 | ES 174 | 489426    | 1672.B19.gz43_262130 |
| M00055723C:F09 | ES 174 | 503923    | 1672.B22.gz43_262178 |
| M00055723D:C04 | ES 174 | 522497    | 1672.C03.gz43_261875 |
| M00055723D:E05 | ES 174 | 649106    | 1672.C06.gz43_261923 |
| M00055724A:C12 | ES 174 | 284586    | 1672.C12.gz43_262019 |
| M00055724A:E03 | ES 174 | 645018    | 1672.C15.gz43_262067 |
| M00055724A:G08 | ES 174 | 504568    | 1672.C17.gz43_262099 |
| M00055724B:D04 | ES 174 | 467822    | 1672.C20.gz43_262147 |
| M00055724B:G03 | ES 174 | 642722    | 1672.C23.gz43_262195 |
| M00055724B:H03 | ES 174 | 557221    | 1672.D02.gz43_261860 |
| M00055724D:A02 | ES 174 | 559828    | 1672.D17.gz43_262100 |
| M00055725A:F12 | ES 174 | 641305    | 1672.E02.gz43_261861 |
| M00055725A:G07 | ES 174 | 557833    | 1672.E03.gz43_261877 |
| M00055725D:B02 | ES 174 | 522548    | 1672.E14.gz43_262053 |
| M00055725D:F05 | ES 174 | 452212    | 1672.E19.gz43_262133 |
| M00055726C:F01 | ES 174 | 645004    | 1672.F16.gz43_262086 |
| M00055726D:H12 | ES 174 | 489249    | 1672.F24.gz43_262214 |
| M00055727A:G01 | ES 174 | 507188    | 1672.G02.gz43_261863 |
| M00055727B:F10 | ES 174 | 642535    | 1672.G12.gz43_262023 |
| M00055727C:B02 | ES 174 | 559776    | 1672.G16.gz43_262087 |
| M00055727D:G01 | ES 174 | 641070    | 1672.H02.gz43_261864 |
| M00055727D:H04 | ES 174 | 639711    | 1672.H04.gz43_261896 |
| M00055728B:G11 | ES 174 | 647060    | 1672.H16.gz43_262088 |
| M00055728C:B08 | ES 174 | 455113    | 1672.H17.gz43_262104 |
| M00055728D:F02 | ES 174 | 554708    | 1672.H22.gz43_262184 |
| M00055729A:B12 | ES 174 | 672032    | 1672.I02.gz43_261865 |
| M00055729B:G03 | ES 174 | 641101    | 1672.I12.gz43_262025 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055729C:D11 | ES 174 | 642315    | 1672.I16.gz43_262089 |
| M00055729C:E02 | ES 174 | 477064    | 1672.I17.gz43_262105 |
| M00055729D:A06 | ES 174 | 546705    | 1672.I18.gz43_262121 |
| M00055729D:F05 | ES 174 | 644609    | 1672.I21.gz43_262169 |
| M00055731A:C03 | ES 174 | 461583    | 1672.J13.gz43_262042 |
| M00055731A:G05 | ES 174 | 640704    | 1672.J17.gz43_262106 |
| M00055731A:H07 | ES 174 | 235397    | 1672.J18.gz43_262122 |
| M00055731C:F09 | ES 174 | 454383    | 1672.K06.gz43_261931 |
| M00055731C:H07 | ES 174 | 639458    | 1672.K08.gz43_261963 |
| M00055731D:B10 | ES 174 | 646129    | 1672.K11.gz43_262011 |
| M00055731D:E12 | ES 174 | 555681    | 1672.K13.gz43_262043 |
| M00055731D:F09 | ES 174 | 640879    | 1672.K15.gz43_262075 |
| M00055732A:B04 | ES 174 | 651085    | 1672.K18.gz43_262123 |
| M00055732A:C12 | ES 174 | 322255    | 1672.K19.gz43_262139 |
| M00055732A:F09 | ES 174 | 642557    | 1672.K21.gz43_262171 |
| M00055733A:G04 | ES 174 | 642631    | 1672.L11.gz43_262012 |
| M00055733B:F11 | ES 174 | 504501    | 1672.L16.gz43_262092 |
| M00055733B:H05 | ES 174 | 419443    | 1672.L17.gz43_262108 |
| M00055733C:G02 | ES 174 | 383609    | 1672.L18.gz43_262124 |
| M00055733C:H12 | ES 174 | 650397    | 1672.L20.gz43_262156 |
| M00055733D:B11 | ES 174 | 561968    | 1672.L21.gz43_262172 |
| M00055733D:D04 | ES 174 | 645151    | 1672.L23.gz43_262204 |
| M00055733D:H01 | ES 174 | 416377    | 1672.M04.gz43_261901 |
| M00055734D:A02 | ES 174 | 461474    | 1672.M16.gz43_262093 |
| M00055734D:D01 | ES 174 | 646609    | 1672.M19.gz43_262141 |
| M00055734D:E05 | ES 174 | 642376    | 1672.M21.gz43_262173 |
| M00055734D:E10 | ES 174 | 645165    | 1672.M22.gz43_262189 |
| M00055734D:G12 | ES 174 | 558146    | 1672.M23.gz43_262205 |
| M00055735A:B05 | ES 174 | 647669    | 1672.N01.gz43_261854 |
|                |        |           |                      |
| M00055735B:F11 | ES 175 | 642111    | 1672.N10.gz43_261998 |
| M00055735C:G08 | ES 175 | 648667    | 1672.N14.gz43_262062 |
| M00055735D:C01 | ES 175 | 502826    | 1672.N18.gz43_262126 |
| M00055735D:E10 | ES 175 | 556336    | 1672.N19.gz43_262142 |
| M00055736A:B11 | ES 175 | 648265    | 1672.N23.gz43_262206 |
| M00055736B:C08 | ES 175 | 643897    | 1672.O04.gz43_261903 |
| M00055736C:D06 | ES 175 | 466434    | 1672.O09.gz43_261983 |
| M00055736D:D11 | ES 175 | 642263    | 1672.O15.gz43_262079 |
| M00055737B:A03 | ES 175 | 640266    | 1672.O20.gz43_262159 |
| M00055738B:H11 | ES 175 | 100821    | 1672.P13.gz43_262048 |
| M00055738C:A12 | ES 175 | 647556    | 1672.P14.gz43_262064 |
| M00055738C:C02 | ES 175 | 647906    | 1672.P15.gz43_262080 |
| M00055738D:G08 | ES 175 | 645085    | 1672.P20.gz43_262160 |
| M00055739A:B02 | ES 175 | 550049    | 1672.P21.gz43_262176 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055739A:B04 | ES 175 | 608540    | 1672.P22.gz43_262192 |
| M00055739A:C09 | ES 175 | 558301    | 1681.A01.gz43_296936 |
| M00055739B:B06 | ES 175 | 468613    | 1681.A03.gz43_296968 |
| M00055739B:D09 | ES 175 | 644836    | 1681.A04.gz43_296984 |
| M00055739B:H08 | ES 175 | 568467    | 1681.A08.gz43_297048 |
| M00055739C:D11 | ES 175 | 648481    | 1681.A10.gz43_297080 |
| M00055739D:B12 | ES 175 | 644684    | 1681.A13.gz43_297128 |
| M00055739D:C03 | ES 175 | 463815    | 1681.A14.gz43_297144 |
| M00055739D:E04 | ES 175 | 644919    | 1681.A16.gz43_297176 |
| M00055740A:B03 | ES 175 | 462245    | 1681.A19.gz43_297224 |
| M00055740B:C06 | ES 175 | 643142    | 1681.A21.gz43_297256 |
| M00055740B:F09 | ES 175 | 463824    | 1681.A24.gz43_297304 |
| M00055740C:A07 | ES 175 | 648905    | 1681.B03.gz43_296969 |
| M00055740C:E06 | ES 175 | 644937    | 1681.B04.gz43_296985 |
| M00055740D:G12 | ES 175 | 150839    | 1681.B10.gz43_297081 |
| M00055741A:D09 | ES 175 | 640504    | 1681.B13.gz43_297129 |
| M00055741B:B12 | ES 175 | 640997    | 1681.B15.gz43_297161 |
| M00055741C:A09 | ES 175 | 526459    | 1681.B18.gz43_297209 |
| M00055741D:H01 | ES 175 | 548920    | 1681.C01.gz43_296938 |
| M00055742B:H06 | ES 175 | 645147    | 1681.C08.gz43_297050 |
| M00055742C:A07 | ES 175 | 640306    | 1681.C10.gz43_297082 |
| M00055742C:C01 | ES 175 | 419479    | 1681.C11.gz43_297098 |
| M00055742D:H03 | ES 175 | 413621    | 1681.C16.gz43_297178 |
| M00055743B:E01 | ES 175 | 389377    | 1681.C24.gz43_297306 |
| M00055743C:C01 | ES 175 | 508755    | 1681.D02.gz43_296955 |
| M00055743C:D12 | ES 175 | 463951    | 1681.D05.gz43_297003 |
| M00055743D:D04 | ES 175 | 649427    | 1681.D09.gz43_297067 |
| M00055743D:E07 | ES 175 | 448703    | 1681.D10.gz43_297083 |
| M00055744A:B04 | ES 175 | 642263    | 1681.D15.gz43_297163 |
| M00055744B:B02 | ES 175 | 640017    | 1681.D19.gz43_297227 |
| M00055744B:C08 | ES 175 | 218416    | 1681.D20.gz43_297243 |
| M00055744C:D02 | ES 175 | 642644    | 1681.E02.gz43_296956 |
| M00055744D:A11 | ES 175 | 447936    | 1681.E08.gz43_297052 |
| M00055744D:F03 | ES 175 | 645000    | 1681.E11.gz43_297100 |
| M00055745A:H02 | ES 175 | 453726    | 1681.E19.gz43_297228 |
| M00055745B:H02 | ES 175 | 470667    | 1681.E23.gz43_297292 |
| M00055745C:A06 | ES 175 | 468959    | 1681.E24.gz43_297308 |
| M00055745C:G06 | ES 175 | 552085    | 1681.F03.gz43_296973 |
| M00055745D:F11 | ES 175 | 556654    | 1681.F09.gz43_297069 |
| M00055746A:C09 | ES 175 | 644053    | 1681.F10.gz43_297085 |
| M00055746C:F06 | ES 175 | 587696    | 1681.F17.gz43_297197 |
| M00055746C:F10 | ES 175 | 471277    | 1681.F18.gz43_297213 |
| M00055746C:G06 | ES 175 | 644468    | 1681.F19.gz43_297229 |
| M00055747C:E09 | ES 175 | 529742    | 1681.G11.gz43_297102 |

1681.G19.gz43\_297230

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055748A:B03 | ES 175 | 593343    | 1681.G19.gz43_297230 |
| M00055748A:D07 | ES 175 | 448251    | 1681.G21.gz43_297262 |
| M00055748C:C07 | ES 175 | 446925    | 1681.H03.gz43_296975 |
| M00055748D:C03 | ES 175 | 594040    | 1681.H09.gz43_297071 |
| M00055749B:C10 | ES 175 | 461917    | 1681.H17.gz43_297199 |
| M00055749B:D12 | ES 175 | 452504    | 1681.H18.gz43_297215 |
| M00055749C:B03 | ES 175 | 644105    | 1681.H19.gz43_297231 |
| M00055749C:C04 | ES 175 | 489040    | 1681.H20.gz43_297247 |
| M00055749D:B07 | ES 175 | 426366    | 1681.I01.gz43_296944 |
| M00055749D:C01 | ES 175 | 644105    | 1681.I02.gz43_296960 |
| M00055749D:D06 | ES 175 | 649356    | 1681.I03.gz43_296976 |
| M00055749D:F12 | ES 175 | 644342    | 1681.I04.gz43_296992 |
| M00055750B:H01 | ES 175 | 644510    | 1681.I17.gz43_297200 |
| M00055750C:H10 | ES 175 | 638943    | 1681.J01.gz43_296945 |
| M00055750D:H06 | ES 175 | 649763    | 1681.J05.gz43_297009 |
| M00055751A:F06 | ES 175 | 488432    | 1681.J09.gz43_297073 |
| M00055752A:E10 | ES 175 | 649702    | 1681.J20.gz43_297249 |
| M00055752A:G10 | ES 175 | 644479    | 1681.J23.gz43_297297 |
| M00055752C:C06 | ES 175 | 510724    | 1681.K03.gz43_296978 |
| M00055752C:F06 | ES 175 | 644345    | 1681.K05.gz43_297010 |
| M00055752C:H07 | ES 175 | 611927    | 1681.K07.gz43_297042 |
| M00055752D:C01 | ES 175 | 641144    | 1681.K09.gz43_297074 |
| M00055752D:F01 | ES 175 | 644342    | 1681.K10.gz43_297090 |
| M00055753A:D04 | ES 175 | 639703    | 1681.K16.gz43_297186 |
| M00055753B:A02 | ES 175 | 483042    | 1681.K18.gz43_297218 |
| M00055753B:A06 | ES 175 | 447485    | 1681.K19.gz43_297234 |
| M00055753B:F10 | ES 175 | 449438    | 1681.K22.gz43_297282 |
| M00055753D:C06 | ES 175 | 446676    | 1681.L03.gz43_296979 |
| M00055754A:E04 | ES 175 | 446355    | 1681.L08.gz43_297059 |
| M00055754A:E07 | ES 175 | 550223    | 1681.L09.gz43_297075 |
| M00055754A:H06 | ES 175 | 478833    | 1681.L11.gz43_297107 |
| M00055755A:B11 | ES 175 | 514838    | 1681.L18.gz43_297219 |
| M00055755C:F12 | ES 175 | 464171    | 1681.M08.gz43_297060 |
| M00055755D:C09 | ES 175 | 491544    | 1681.M09.gz43_297076 |
| M00055756C:C03 | ES 175 | 639750    | 1681.M16.gz43_297188 |
| M00055756D:B05 | ES 175 | 643941    | 1681.M20.gz43_297252 |
| M00055756D:E05 | ES 175 | 108479    | 1681.M21.gz43_297268 |
| M00055757A:A07 | ES 175 | 553675    | 1681.M24.gz43_297316 |
| M00055757B:B07 | ES 175 | 646552    | 1681.N06.gz43_297029 |
| M00055757B:C04 | ES 175 | 639420    | 1681.N07.gz43_297045 |
| M00055757B:D06 | ES 175 | 235194    | 1681.N09.gz43_297077 |
| M00055757D:B05 | ES 175 | 643984    | 1681.N18.gz43_297221 |
| M00055758A:G02 | ES 175 | 644461    | 1681.N21.gz43_297269 |
| M00055758C:H10 | ES 175 | 645603    | 1681.O01.gz43_296950 |

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055767B:D02 | ES 175 | 642082    | 1682.F11.gz43_262390 |
| M00055767D:A12 | ES 175 | 642082    | 1682.F17.gz43_262486 |
| M00055767D:E07 | ES 175 | 642417    | 1682.F20.gz43_262534 |
| M00055767D:F04 | ES 175 | 546740    | 1682.F21.gz43_262550 |
| M00055768A:B05 | ES 175 | 648996    | 1682.F24.gz43_262598 |
| M00055768B:H12 | ES 175 | 541499    | 1682.G13.gz43_262423 |
| M00055768D:G02 | ES 175 | 555140    | 1682.G22.gz43_262567 |
| M00055770A:F01 | ES 175 | 640997    | 1682.G24.gz43_262599 |
| M00055770A:G08 | ES 175 | 644173    | 1682.H02.gz43_262248 |
| M00055770A:H11 | ES 175 | 530238    | 1682.H03.gz43_262264 |
| M00055770B:D06 | ES 175 | 446757    | 1682.H06.gz43_262312 |
| M00055770B:F06 | ES 175 | 642474    | 1682.H07.gz43_262328 |
| M00055770C:A02 | ES 175 | 551167    | 1682.H08.gz43_262344 |
| M00055770C:D01 | ES 175 | 234606    | 1682.H09.gz43_262360 |
| M00055770C:H11 | ES 175 | 562876    | 1682.H12.gz43_262408 |
| M00055770D:E10 | ES 175 | 464510    | 1682.H19.gz43_262520 |
| M00055771A:A11 | ES 175 | 557797    | 1682.H22.gz43_262568 |
| M00055771B:G05 | ES 175 | 471268    | 1682.I10.gz43_262377 |
| M00055771C:A11 | ES 175 | 453079    | 1682.I12.gz43_262409 |
| M00055771C:D09 | ES 175 | 509410    | 1682.I13.gz43_262425 |
| M00055771C:F05 | ES 175 | 642604    | 1682.I15.gz43_262457 |
| M00055772A:C10 | ES 175 | 642036    | 1682.I24.gz43_262601 |
| M00055772A:E12 | ES 175 | 648588    | 1682.J01.gz43_262234 |
| M00055772A:H08 | ES 175 | 642791    | 1682.J04.gz43_262282 |
| M00055772C:B09 | ES 175 | 452503    | 1682.J08.gz43_262346 |
| M00055772C:E11 | ES 175 | 463951    | 1682.J10.gz43_262378 |
| M00055772C:G08 | ES 175 | 138470    | 1682.J12.gz43_262410 |
| M00055772D:C10 | ES 175 | 641563    | 1682.J15.gz43_262458 |
| M00055772D:D03 | ES 175 | 517912    | 1682.J16.gz43_262474 |
| M00055772D:F10 | ES 175 | 450553    | 1682.J18.gz43_262506 |
| M00055772D:F11 | ES 175 | 642558    | 1682.J19.gz43_262522 |
| M00055772D:H04 | ES 175 | 466971    | 1682.J20.gz43_262538 |
| M00055773A:F05 | ES 175 | 644451    | 1682.J22.gz43_262570 |
| M00055773B:A07 | ES 175 | 644914    | 1682.J24.gz43_262602 |
| M00055773C:C09 | ES 175 | 446163    | 1682.K04.gz43_262283 |
| M00055773C:D12 | ES 175 | 650272    | 1682.K05.gz43_262299 |
| M00055773C:H12 | ES 175 | 454540    | 1682.K06.gz43_262315 |
| M00055773D:G11 | ES 175 | 642637    | 1682.K09.gz43_262363 |
| M00055774A:D04 | ES 175 | 449975    | 1682.K14.gz43_262443 |
| M00055774B:F07 | ES 175 | 647940    | 1682.K18.gz43_262507 |
| M00055774B:H01 | ES 175 | 641185    | 1682.K20.gz43_262539 |
| M00055774C:D09 | ES 175 | 640617    | 1682.K22.gz43_262571 |
| M00055774D:A05 | ES 175 | 642417    | 1682.L02.gz43_262252 |
|                |        |           |                      |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055774D:B07 | ES 176 | 553380    | 1682.L03.gz43_262268 |
| M00055774D:E02 | ES 176 | 458979    | 1682.L06.gz43_262316 |
| M00055775A:G09 | ES 176 | 101499    | 1682.L12.gz43_262412 |
| M00055775B:A06 | ES 176 | 447206    | 1682.L16.gz43_262476 |
| M00055775B:G02 | ES 176 | 644240    | 1682.L20.gz43_262540 |
| M00055775B:G04 | ES 176 | 559662    | 1682.L21.gz43_262556 |
| M00055775C:B02 | ES 176 | 645327    | 1682.L24.gz43_262604 |
| M00055775C:B10 | ES 176 | 553877    | 1682.M02.gz43_262253 |
| M00055775C:D08 | ES 176 | 642265    | 1682.M03.gz43_262269 |
| M00055775C:E10 | ES 176 | 641056    | 1682.M04.gz43_262285 |
| M00055778A:E09 | ES 176 | 621635    | 1682.M16.gz43_262477 |
| M00055778A:F09 | ES 176 | 461835    | 1682.M18.gz43_262509 |
| M00055778A:F12 | ES 176 | 642564    | 1682.M19.gz43_262525 |
| M00055778A:G02 | ES 176 | 509027    | 1682.M20.gz43_262541 |
| M00055778B:C03 | ES 176 | 645036    | 1682.M22.gz43_262573 |
| M00055778B:E01 | ES 176 | 458425    | 1682.M24.gz43_262605 |
| M00055778C:D09 | ES 176 | 494767    | 1682.N06.gz43_262318 |
| M00055778D:A03 | ES 176 | 642095    | 1682.N11.gz43_262398 |
| M00055778D:C03 | ES 176 | 639829    | 1682.N12.gz43_262414 |
| M00055779A:B06 | ES 176 | 642166    | 1682.N15.gz43_262462 |
| M00055779A:H05 | ES 176 | 480035    | 1682.N20.gz43_262542 |
| M00055779B:F06 | ES 176 | 556476    | 1682.N24.gz43_262606 |
| M00055780A:C04 | ES 176 | 89082     | 1682.O13.gz43_262431 |
| M00055780A:C06 | ES 176 | 561558    | 1682.O14.gz43_262447 |
| M00055780A:E01 | ES 176 | 650451    | 1682.O15.gz43_262463 |
| M00055780A:E03 | ES 176 | 642491    | 1682.O16.gz43_262479 |
| M00055780A:E11 | ES 176 | 450211    | 1682.O17.gz43_262495 |
| M00055780A:F07 | ES 176 | 641496    | 1682.O18.gz43_262511 |
| M00055780A:G04 | ES 176 | 453090    | 1682.O20.gz43_262543 |
| M00055780C:E02 | ES 176 | 641174    | 1682.P06.gz43_262320 |
| M00055780C:E10 | ES 176 | 502614    | 1682.P07.gz43_262336 |
| M00055780D:D09 | ES 176 | 642332    | 1682.P12.gz43_262416 |
| M00055780D:F08 | ES 176 | 453091    | 1682.P13.gz43_262432 |
| M00055781A:B04 | ES 176 | 642147    | 1682.P19.gz43_262528 |
| M00055782B:C08 | ES 176 | 643230    | 1683.A19.gz43_262897 |
| M00055782C:H01 | ES 176 | 459064    | 1683.B06.gz43_262690 |
| M00055782D:H01 | ES 176 | 649883    | 1683.B11.gz43_262770 |
| M00055783A:C06 | ES 176 | 642184    | 1683.B14.gz43_262818 |
| M00055783A:F03 | ES 176 | 644486    | 1683.B18.gz43_262882 |
| M00055783B:A04 | ES 176 | 523590    | 1683.B20.gz43_262914 |
| M00055783C:A05 | ES 176 | 506285    | 1683.C01.gz43_262611 |
| M00055783D:B02 | ES 176 | 497971    | 1683.C05.gz43_262675 |
| M00055784A:B07 | ES 176 | 140909    | 1683.C12.gz43_262787 |
| M00055784A:D05 | ES 176 | 456626    | 1683.C16.gz43_262851 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055784A:G10 | ES 176 | 450384    | 1683.C19.gz43_262899 |
| M00055784C:H02 | ES 176 | 675768    | 1683.D03.gz43_262644 |
| M00055784D:E03 | ES 176 | 457847    | 1683.D05.gz43_262676 |
| M00055785A:H08 | ES 176 | 549434    | 1683.D09.gz43_262740 |
| M00055785B:B06 | ES 176 | 650076    | 1683.D12.gz43_262788 |
| M00055785D:C06 | ES 176 | 672601    | 1683.E01.gz43_262613 |
| M00055786D:E10 | ES 176 | 461990    | 1683.E19.gz43_262901 |
| M00055787B:E02 | ES 176 | 541209    | 1683.F03.gz43_262646 |
| M00055787B:F10 | ES 176 | 648905    | 1683.F04.gz43_262662 |
| M00055787C:D09 | ES 176 | 643350    | 1683.F10.gz43_262758 |
| M00055787C:E12 | ES 176 | 449836    | 1683.F12.gz43_262790 |
| M00055787D:B07 | ES 176 | 642318    | 1683.F16.gz43_262854 |
| M00055789C:C12 | ES 176 | 640799    | 1683.G23.gz43_262967 |
| M00055789C:F10 | ES 176 | 463290    | 1683.H01.gz43_262616 |
| M00055789D:B04 | ES 176 | 642146    | 1683.H03.gz43_262648 |
| M00055789D:C06 | ES 176 | 621635    | 1683.H04.gz43_262664 |
| M00055790B:A08 | ES 176 | 638962    | 1683.H14.gz43_262824 |
| M00055790B:D05 | ES 176 | 553546    | 1683.H18.gz43_262888 |
| M00055790C:C02 | ES 176 | 415950    | 1683.H22.gz43_262952 |
| M00055790D:G10 | ES 176 | 467306    | 1683.I04.gz43_262665 |
| M00055791B:E02 | ES 176 | 510545    | 1683.I11.gz43_262777 |
| M00055791C:A02 | ES 176 | 396191    | 1683.I15.gz43_262841 |
| M00055792B:D08 | ES 176 | 396149    | 1683.J14.gz43_262826 |
| M00055793A:H09 | ES 176 | 554117    | 1683.K06.gz43_262699 |
| M00055793B:B06 | ES 176 | 641919    | 1683.K08.gz43_262731 |
| M00055794A:D08 | ES 176 | 605761    | 1683.L08.gz43_262732 |
| M00055794B:F04 | ES 176 | 561718    | 1683.L17.gz43_262876 |
| M00055794C:D10 | ES 176 | 457396    | 1683.L21.gz43_262940 |
| M00055795A:F09 | ES 176 | 446595    | 1683.M09.gz43_262749 |
| M00055795A:F12 | ES 176 | 454485    | 1683.M10.gz43_262765 |
| M00055795B:F09 | ES 176 | 641700    | 1683.M15.gz43_262845 |
| M00055795C:B10 | ES 176 | 388085    | 1683.M20.gz43_262925 |
| M00055795D:E09 | ES 176 | 645508    | 1683.N05.gz43_262686 |
| M00055795D:F08 | ES 176 | 450218    | 1683.N06.gz43_262702 |
| M00055795D:H08 | ES 176 | 77144     | 1683.N11.gz43_262782 |
| M00055796A:A08 | ES 176 | 437580    | 1683.N15.gz43_262846 |
| M00055796B:G05 | ES 176 | 644047    | 1683.O05.gz43_262687 |
| M00055796C:E11 | ES 176 | 647639    | 1683.O10.gz43_262767 |
| M00055796D:E06 | ES 176 | 553979    | 1683.O16.gz43_262863 |
| M00055796D:E10 | ES 176 | 640525    | 1683.O17.gz43_262879 |
| M00055797B:A11 | ES 176 | 417617    | 1683.O23.gz43_262975 |
| M00055797B:B04 | ES 176 | 639807    | 1683.O24.gz43_262991 |
| M00055797C:F08 | ES 176 | 517224    | 1683.P09.gz43_262752 |
| M00055798B:D12 | ES 176 | 418340    | 1684.A04.gz43_263041 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055798B:F02 | ES 176 | 644915    | 1684.A05.gz43_263057 |
| M00055798B:G04 | ES 176 | 645560    | 1684.A06.gz43_263073 |
| M00055798D:A10 | ES 176 | 455028    | 1684.A10.gz43_263137 |
| M00055798D:H10 | ES 176 | 483726    | 1684.A13.gz43_263185 |
| M00055799B:G02 | ES 176 | 674574    | 1684.A23.gz43_263345 |
| M00055799C:D09 | ES 176 | 645700    | 1684.A24.gz43_263361 |
| M00055799D:F11 | ES 176 | 640334    | 1684.B06.gz43_263074 |
| M00055800A:F01 | ES 176 | 462247    | 1684.B14.gz43_263202 |
| M00055800A:F02 | ES 176 | 490414    | 1684.B15.gz43_263218 |
| M00055800C:E11 | ES 176 | 640537    | 1684.B22.gz43_263330 |
| M00055800D:B03 | ES 176 | 462249    | 1684.C04.gz43_263043 |
| M00055801D:E06 | ES 176 | 564382    | 1684.C23.gz43_263347 |
| M00055802A:C03 | ES 176 | 494767    | 1684.D06.gz43_263076 |
| M00055802B:H03 | ES 176 | 486134    | 1684.D17.gz43_263252 |
| M00055802C:E12 | ES 176 | 643991    | 1684.D22.gz43_263332 |
| M00055803A:C06 | ES 176 | 513238    | 1684.E06.gz43_263077 |
| M00055803A:F03 | ES 176 | 455405    | 1684.E10.gz43_263141 |
| M00055803A:G08 | ES 176 | 642653    | 1684.E11.gz43_263157 |
| M00055803B:A11 | ES 176 | 530774    | 1684.E13.gz43_263189 |
| M00055803B:E10 | ES 176 | 557344    | 1684.E18.gz43_263269 |
| M00055804B:C02 | ES 176 | 639194    | 1684.F18.gz43_263270 |
| M00055804D:F02 | ES 176 | 463821    | 1684.G01.gz43_262999 |
| M00055805A:A02 | ES 176 | 640222    | 1684.G05.gz43_263063 |
| M00055805A:C11 | ES 176 | 641059    | 1684.G06.gz43_263079 |
| M00055805B:C08 | ES 176 | 642198    | 1684.G12.gz43_263175 |
| M00055805C:D10 | ES 176 | 630259    | 1684.G17.gz43_263255 |
| M00055805D:C11 | ES 176 | 640617    | 1684.G21.gz43_263319 |
| M00055805D:H01 | ES 176 | 529325    | 1684.G23.gz43_263351 |
| M00055806B:B10 | ES 176 | 644314    | 1684.H08.gz43_263112 |
| M00055806B:D04 | ES 176 | 464040    | 1684.H10.gz43_263144 |
| M00055806C:D07 | ES 176 | 496051    | 1684.H13.gz43_263192 |
| M00055806C:E09 | ES 176 | 375814    | 1684.H14.gz43_263208 |
| M00055806C:G01 | ES 176 | 549616    | 1684.H17.gz43_263256 |
| M00055806D:H03 | ES 176 | 450252    | 1684.H23.gz43_263352 |
| M00055806D:H06 | ES 176 | 640520    | 1684.H24.gz43_263368 |
| M00055807A:B10 | ES 176 | 32812     | 1684.I03.gz43_263033 |
| M00055807B:F05 | ES 176 | 520320    | 1684.I12.gz43_263177 |
| M00055807B:G10 | ES 176 | 446789    | 1684.I14.gz43_263209 |
| M00055807C:F05 | ES 176 | 639441    | 1684.I17.gz43_263257 |
| M00055807D:C04 | ES 176 | 470602    | 1684.I21.gz43_263321 |
| M00055808A:C06 | ES 176 | 450741    | 1684.J05.gz43_263066 |
| M00055808B:A04 | ES 176 | 650782    | 1684.J08.gz43_263114 |
| M00055808B:H07 | ES 176 | 210839    | 1684.J14.gz43_263210 |
| M00055808D:C12 | ES 176 | 460517    | 1684.J20.gz43_263306 |

[illegible]733

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055825D:A03 | ES 176 | 642962    | 1693.H13.gz43_213890 |
| M00055825D:D11 | ES 176 | 551681    | 1693.H20.gz43_214002 |
| M00055826A:G04 | ES 176 | 640464    | 1693.I06.gz43_213779 |
| M00055826B:G07 | ES 176 | 645746    | 1693.I13.gz43_213891 |
| M00055826C:G06 | ES 176 | 650487    | 1693.I19.gz43_213987 |
| M00055827A:A12 | ES 176 | 650579    | 1693.J01.gz43_213700 |
| M00055827D:A01 | ES 176 | 455716    | 1693.J19.gz43_213988 |
| M00055827D:C02 | ES 176 | 556286    | 1693.J22.gz43_214036 |
| M00055827D:G11 | ES 176 | 583915    | 1693.K03.gz43_213733 |
| M00055828A:H10 | ES 176 | 647425    | 1693.K07.gz43_213797 |
| M00055828B:E10 | ES 176 | 517280    | 1693.K10.gz43_213845 |
| M00055829C:A07 | ES 176 | 648567    | 1693.L02.gz43_213718 |
| M00055829D:H10 | ES 176 | 645146    | 1693.L15.gz43_213926 |
| M00055830A:G10 | ES 176 | 645073    | 1693.L17.gz43_213958 |
| M00055830C:H10 | ES 176 | 451134    | 1693.M06.gz43_213783 |
| M00055831A:C06 | ES 176 | 644781    | 1693.M15.gz43_213927 |
|                |        |           |                      |
| M00055831B:C04 | ES 177 | 517237    | 1693.M23.gz43_214055 |
| M00055832A:A08 | ES 177 | 481864    | 1693.N08.gz43_213816 |
| M00055832C:H09 | ES 177 | 648328    | 1693.N19.gz43_213992 |
| M00055833D:F11 | ES 177 | 650912    | 1693.O14.gz43_213913 |
| M00055834B:C11 | ES 177 | 557741    | 1693.O20.gz43_214009 |
| M00055835C:F08 | ES 177 | 642054    | 1693.P21.gz43_214026 |
| M00055836A:B12 | ES 177 | 645149    | 1694.A05.gz43_214139 |
| M00055836C:D01 | ES 177 | 452735    | 1694.A10.gz43_214219 |
| M00055837A:B08 | ES 177 | 447597    | 1694.A15.gz43_214299 |
| M00055837A:D09 | ES 177 | 644210    | 1694.A16.gz43_214315 |
| M00055837A:F02 | ES 177 | 489249    | 1694.A18.gz43_214347 |
| M00055837A:H08 | ES 177 | 645289    | 1694.A19.gz43_214363 |
| M00055837B:E07 | ES 177 | 644987    | 1694.A23.gz43_214427 |
| M00055837D:D08 | ES 177 | 642253    | 1694.B09.gz43_214204 |
| M00055837D:G10 | ES 177 | 504944    | 1694.B11.gz43_214236 |
| M00055838A:A03 | ES 177 | 643800    | 1694.B12.gz43_214252 |
| M00055838A:B02 | ES 177 | 448450    | 1694.B13.gz43_214268 |
| M00055838B:D06 | ES 177 | 467901    | 1694.B15.gz43_214300 |
| M00055838B:G12 | ES 177 | 644417    | 1694.B16.gz43_214316 |
| M00055838B:H04 | ES 177 | 644494    | 1694.B17.gz43_214332 |
| M00055838C:A08 | ES 177 | 447002    | 1694.B18.gz43_214348 |
| M00055838C:B08 | ES 177 | 643948    | 1694.B19.gz43_214364 |
| M00055839B:A10 | ES 177 | 643804    | 1694.C13.gz43_214269 |
| M00055839B:C07 | ES 177 | 648039    | 1694.C15.gz43_214301 |
| M00055839B:E07 | ES 177 | 558890    | 1694.C18.gz43_214349 |
| M00055839B:H09 | ES 177 | 537586    | 1694.C19.gz43_214365 |
| M00055839C:B11 | ES 177 | 467521    | 1694.C22.gz43_214413 |

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055847B:G12 | ES 177 | 651131    | 1694.J19.gz43_214372 |
| M00055847C:A11 | ES 177 | 646459    | 1694.J21.gz43_214404 |
| M00055847C:C01 | ES 177 | 646810    | 1694.J22.gz43_214420 |
| M00055847C:H09 | ES 177 | 452976    | 1694.J24.gz43_214452 |
| M00055848A:E07 | ES 177 | 645681    | 1694.K06.gz43_214165 |
| M00055848B:C03 | ES 177 | 647383    | 1694.K13.gz43_214277 |
| M00055848C:A02 | ES 177 | 645197    | 1694.K15.gz43_214309 |
| M00055848C:G07 | ES 177 | 558981    | 1694.K17.gz43_214341 |
| M00055848C:H06 | ES 177 | 646248    | 1694.K19.gz43_214373 |
| M00055849C:G07 | ES 177 | 547841    | 1694.L06.gz43_214166 |
| M00055849D:B04 | ES 177 | 450949    | 1694.L08.gz43_214198 |
| M00055849D:H09 | ES 177 | 469511    | 1694.L13.gz43_214278 |
| M00055850C:D01 | ES 177 | 608873    | 1694.L21.gz43_214406 |
| M00055850C:G05 | ES 177 | 647318    | 1694.L22.gz43_214422 |
| M00055851A:C03 | ES 177 | 466265    | 1694.M06.gz43_214167 |
| M00055851A:C09 | ES 177 | 649842    | 1694.M07.gz43_214183 |
| M00055851A:G11 | ES 177 | 97507     | 1694.M12.gz43_214263 |
| M00055851A:H10 | ES 177 | 647522    | 1694.M14.gz43_214295 |
| M00055851B:B09 | ES 177 | 562229    | 1694.M16.gz43_214327 |
| M00055851B:G02 | ES 177 | 639295    | 1694.M18.gz43_214359 |
| M00055851B:G10 | ES 177 | 425923    | 1694.M19.gz43_214375 |
| M00055851C:F12 | ES 177 | 643594    | 1694.M23.gz43_214439 |
| M00055851C:H05 | ES 177 | 472801    | 1694.M24.gz43_214455 |
| M00055852A:C12 | ES 177 | 639341    | 1694.N09.gz43_214216 |
| M00055852B:F10 | ES 177 | 562813    | 1694.N12.gz43_214264 |
| M00055852B:G09 | ES 177 | 642293    | 1694.N14.gz43_214296 |
| M00055852B:H04 | ES 177 | 457661    | 1694.N16.gz43_214328 |
| M00055852D:B11 | ES 177 | 644708    | 1694.N20.gz43_214392 |
| M00055852D:G12 | ES 177 | 649611    | 1694.N21.gz43_214408 |
| M00055853B:H06 | ES 177 | 647578    | 1694.O04.gz43_214137 |
| M00055853C:C12 | ES 177 | 603388    | 1694.O08.gz43_214201 |
| M00055853C:H03 | ES 177 | 647577    | 1694.O10.gz43_214233 |
| M00055853D:A07 | ES 177 | 650492    | 1694.O11.gz43_214249 |
| M00055853D:B04 | ES 177 | 643130    | 1694.O13.gz43_214281 |
| M00055853D:C07 | ES 177 | 650217    | 1694.O15.gz43_214313 |
| M00055854A:B07 | ES 177 | 592122    | 1694.O17.gz43_214345 |
| M00055854A:D01 | ES 177 | 639510    | 1694.O19.gz43_214377 |
| M00055854A:E03 | ES 177 | 645145    | 1694.O21.gz43_214409 |
| M00055854A:E04 | ES 177 | 638854    | 1694.O22.gz43_214425 |
| M00055854C:C07 | ES 177 | 549624    | 1694.P04.gz43_214138 |
| M00055854C:E03 | ES 177 | 570939    | 1694.P05.gz43_214154 |
| M00055854C:H11 | ES 177 | 471364    | 1694.P09.gz43_214218 |
| M00055855A:B11 | ES 177 | 404816    | 1694.P14.gz43_214298 |
| M00055855A:G05 | ES 177 | 462659    | 1694.P16.gz43_214330 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055855B:B11 | ES 177 | 643909    | 1694.P20.gz43_214394 |
| M00055855B:D12 | ES 177 | 465576    | 1694.P21.gz43_214410 |
| M00055855C:F11 | ES 177 | 603388    | 1694.P23.gz43_214442 |
| M00055855D:D12 | ES 177 | 509027    | 1695.A04.gz43_214911 |
| M00055855D:G08 | ES 177 | 644442    | 1695.A07.gz43_214959 |
| M00055856A:C06 | ES 177 | 564854    | 1695.A08.gz43_214975 |
| M00055856A:D12 | ES 177 | 644149    | 1695.A09.gz43_214991 |
| M00055856C:F07 | ES 177 | 550267    | 1695.A20.gz43_215167 |
| M00055857C:D09 | ES 177 | 646372    | 1695.B08.gz43_214976 |
| M00055858A:G07 | ES 177 | 642070    | 1695.B24.gz43_215232 |
| M00055860D:E04 | ES 177 | 596882    | 1695.D05.gz43_214930 |
| M00055861B:F04 | ES 177 | 645848    | 1695.D08.gz43_214978 |
| M00055861C:G03 | ES 177 | 645538    | 1695.D13.gz43_215058 |
| M00055862A:C01 | ES 177 | 140224    | 1695.D21.gz43_215186 |
| M00055862D:B02 | ES 177 | 640147    | 1695.E09.gz43_214995 |
| M00055862D:D06 | ES 177 | 449500    | 1695.E11.gz43_215027 |
| M00055863B:C07 | ES 177 | 644030    | 1695.E20.gz43_215171 |
| M00055863D:D09 | ES 177 | 644047    | 1695.F07.gz43_214964 |
| M00055864A:C09 | ES 177 | 644047    | 1695.F13.gz43_215060 |
| M00055864A:E11 | ES 177 | 650773    | 1695.F14.gz43_215076 |
| M00055864B:C09 | ES 177 | 561877    | 1695.F18.gz43_215140 |
| M00055865C:G11 | ES 177 | 649660    | 1695.G23.gz43_215221 |
| M00055865C:H06 | ES 177 | 650517    | 1695.G24.gz43_215237 |
| M00055866A:G10 | ES 177 | 397399    | 1695.H07.gz43_214966 |
| M00055866C:G09 | ES 177 | 644435    | 1695.H17.gz43_215126 |
| M00055866C:H06 | ES 177 | 644410    | 1695.H18.gz43_215142 |
| M00055867A:B02 | ES 177 | 645288    | 1695.H23.gz43_215222 |
| M00055868B:B04 | ES 177 | 649436    | 1695.I16.gz43_215111 |
| M00055868C:F02 | ES 177 | 562059    | 1695.I24.gz43_215239 |
| M00055868D:D08 | ES 177 | 469437    | 1695.J05.gz43_214936 |
| M00055869C:G06 | ES 177 | 449936    | 1695.J14.gz43_215080 |
| M00055869D:A07 | ES 177 | 642411    | 1695.J16.gz43_215112 |
| M00055870B:D04 | ES 177 | 649846    | 1695.J24.gz43_215240 |
| M00055871A:H06 | ES 177 | 524261    | 1695.K09.gz43_215001 |
| M00055871B:B03 | ES 177 | 648819    | 1695.K11.gz43_215033 |
| M00055871C:C07 | ES 177 | 643099    | 1695.K21.gz43_215193 |
| M00055871C:C10 | ES 177 | 644801    | 1695.K22.gz43_215209 |
| M00055872A:C08 | ES 177 | 644755    | 1695.L11.gz43_215034 |
| M00055872A:D08 | ES 177 | 644830    | 1695.L12.gz43_215050 |
| M00055872A:E05 | ES 177 | 505858    | 1695.L13.gz43_215066 |
| M00055872A:E11 | ES 177 | 640534    | 1695.L15.gz43_215098 |
| M00055872D:D12 | ES 177 | 447035    | 1695.M08.gz43_214987 |
| M00055873A:E03 | ES 177 | 643451    | 1695.M16.gz43_215115 |
| M00055873D:E04 | ES 177 | 643488    | 1695.N10.gz43_215020 |

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055890A:G12 | ES 178 | 649068    | 1696.N21.gz43_215580 |
| M00055890A:H11 | ES 178 | 643724    | 1696.N23.gz43_215612 |
| M00055891B:F09 | ES 178 | 643513    | 1696.P02.gz43_215278 |
| M00055892A:F04 | ES 178 | 649027    | 1696.P23.gz43_215614 |
| M00055892B:D02 | ES 178 | 643366    | 1696.P24.gz43_215630 |
| M00055893B:C05 | ES 178 | 650476    | 1705.A11.gz43_215791 |
| M00055894A:H08 | ES 178 | 374340    | 1705.A22.gz43_215967 |
| M00055894B:E09 | ES 178 | 394373    | 1705.B03.gz43_215664 |
| M00055896A:G01 | ES 178 | 648576    | 1705.B11.gz43_215792 |
| M00055896B:C06 | ES 178 | 643948    | 1705.B14.gz43_215840 |
| M00055896B:H04 | ES 178 | 640762    | 1705.B18.gz43_215904 |
| M00055896C:H10 | ES 178 | 553951    | 1705.B23.gz43_215984 |
| M00055896D:G10 | ES 178 | 557361    | 1705.C03.gz43_215665 |
| M00055898B:E07 | ES 178 | 485237    | 1705.C11.gz43_215793 |
| M00055899A:B03 | ES 178 | 645844    | 1705.C18.gz43_215905 |
| M00055899C:H01 | ES 178 | 474577    | 1705.D05.gz43_215698 |
| M00055900A:F08 | ES 178 | 644390    | 1705.D16.gz43_215874 |
| M00055900B:E12 | ES 178 | 446728    | 1705.D20.gz43_215938 |
| M00055900D:D03 | ES 178 | 526575    | 1705.E01.gz43_215635 |
| M00055901B:A02 | ES 178 | 647522    | 1705.E10.gz43_215779 |
| M00055901C:A01 | ES 178 | 553720    | 1705.E16.gz43_215875 |
| M00055901C:C10 | ES 178 | 641087    | 1705.E18.gz43_215907 |
| M00055901C:D04 | ES 178 | 642940    | 1705.E19.gz43_215923 |
| M00055902A:H11 | ES 178 | 643513    | 1705.F06.gz43_215716 |
| M00055902D:A07 | ES 178 | 557947    | 1705.F14.gz43_215844 |
| M00055902D:H10 | ES 178 | 482163    | 1705.F18.gz43_215908 |
| M00055903B:C10 | ES 178 | 644063    | 1705.F24.gz43_216004 |
| M00055903B:E05 | ES 178 | 554166    | 1705.G03.gz43_215669 |
| M00055904B:B01 | ES 178 | 643914    | 1705.G12.gz43_215813 |
| M00055904C:A07 | ES 178 | 643809    | 1705.G15.gz43_215861 |
| M00055904D:A06 | ES 178 | 643808    | 1705.G18.gz43_215909 |
| M00055905A:F11 | ES 178 | 644354    | 1705.G24.gz43_216005 |
| M00055905B:H01 | ES 178 | 639194    | 1705.H06.gz43_215718 |
| M00055905D:B06 | ES 178 | 605596    | 1705.H13.gz43_215830 |
| M00055905D:H02 | ES 178 | 550242    | 1705.H17.gz43_215894 |
| M00055906C:F03 | ES 178 | 641562    | 1705.H23.gz43_215990 |
| M00055906D:G03 | ES 178 | 454720    | 1705.I06.gz43_215719 |
| M00055907D:D06 | ES 178 | 449994    | 1705.J06.gz43_215720 |
| M00055908D:F09 | ES 178 | 644364    | 1705.K04.gz43_215689 |
| M00055909B:B12 | ES 178 | 638869    | 1705.K10.gz43_215785 |
| M00055909B:G10 | ES 178 | 643089    | 1705.K16.gz43_215881 |
| M00055909C:E08 | ES 178 | 447326    | 1705.K20.gz43_215945 |
| M00055909C:G09 | ES 178 | 645781    | 1705.K21.gz43_215961 |
| M00055909D:A09 | ES 178 | 638919    | 1705.K22.gz43_215977 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055909D:E01 | ES 178 | 89082     | 1705.K24.gz43_216009 |
| M00055910B:B11 | ES 178 | 642985    | 1705.L11.gz43_215802 |
| M00055910B:H12 | ES 178 | 639240    | 1705.L16.gz43_215882 |
| M00055910C:G01 | ES 178 | 468147    | 1705.L19.gz43_215930 |
| M00055910C:G04 | ES 178 | 685001    | 1705.L20.gz43_215946 |
| M00055910D:A03 | ES 178 | 643825    | 1705.L21.gz43_215962 |
| M00055911B:E06 | ES 178 | 644242    | 1705.M05.gz43_215707 |
| M00055912A:F08 | ES 178 | 557675    | 1705.M16.gz43_215883 |
| M00055912B:E05 | ES 178 | 648237    | 1705.M20.gz43_215947 |
| M00055912C:C08 | ES 178 | 640756    | 1705.M22.gz43_215979 |
| M00055912D:F04 | ES 178 | 644407    | 1705.N05.gz43_215708 |
| M00055913A:G07 | ES 178 | 649312    | 1705.N12.gz43_215820 |
| M00055913B:D05 | ES 178 | 644190    | 1705.N17.gz43_215900 |
| M00055914A:A03 | ES 178 | 449737    | 1705.O02.gz43_215661 |
| M00055914C:D12 | ES 178 | 643300    | 1705.O09.gz43_215773 |
| M00055914C:G01 | ES 178 | 644108    | 1705.O11.gz43_215805 |
| M00055914C:G11 | ES 178 | 641645    | 1705.O12.gz43_215821 |
| M00055914D:A08 | ES 178 | 564134    | 1705.O13.gz43_215837 |
| M00055914D:G06 | ES 178 | 553587    | 1705.O16.gz43_215885 |
| M00055915A:A06 | ES 178 | 639413    | 1705.O17.gz43_215901 |
| M00055915B:D08 | ES 178 | 447212    | 1705.O21.gz43_215965 |
| M00055915C:B09 | ES 178 | 643991    | 1705.O24.gz43_216013 |
| M00055915D:A07 | ES 178 | 640178    | 1705.P05.gz43_215710 |
| M00055916A:E12 | ES 178 | 644236    | 1705.P12.gz43_215822 |
| M00055916B:C02 | ES 178 | 649170    | 1705.P15.gz43_215870 |
| M00055917B:D02 | ES 178 | 642911    | 1706.A08.gz43_216139 |
| M00055917C:F04 | ES 178 | 549994    | 1706.A13.gz43_216219 |
| M00055917D:E07 | ES 178 | 644301    | 1706.A16.gz43_216267 |
| M00055918A:F10 | ES 178 | 645028    | 1706.A20.gz43_216331 |
| M00055918B:B07 | ES 178 | 643936    | 1706.A24.gz43_216395 |
| M00055918B:B10 | ES 178 | 459881    | 1706.B01.gz43_216028 |
| M00055918B:F10 | ES 178 | 557175    | 1706.B03.gz43_216060 |
| M00055918C:C04 | ES 178 | 651131    | 1706.B05.gz43_216092 |
| M00055918C:E02 | ES 178 | 642166    | 1706.B07.gz43_216124 |
| M00055919A:A06 | ES 178 | 647952    | 1706.B12.gz43_216204 |
| M00055919B:H11 | ES 178 | 562021    | 1706.B19.gz43_216316 |
| M00055919D:H07 | ES 178 | 644554    | 1706.C01.gz43_216029 |
| M00055920A:H10 | ES 178 | 640977    | 1706.C05.gz43_216093 |
| M00055920B:F02 | ES 178 | 644410    | 1706.C09.gz43_216157 |
| M00055921A:E06 | ES 178 | 188079    | 1706.C21.gz43_216349 |
| M00055922A:F05 | ES 178 | 465576    | 1706.D13.gz43_216222 |
| M00055922A:G07 | ES 178 | 650900    | 1706.D15.gz43_216254 |
| M00055922B:A06 | ES 178 | 447426    | 1706.D17.gz43_216286 |
| M00055922B:G09 | ES 178 | 649085    | 1706.D21.gz43_216350 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055922D:G10 | ES 178 | 419009    | 1706.E06.gz43_216111 |
| M00055923B:C07 | ES 178 | 643170    | 1706.E10.gz43_216175 |
| M00055924B:D02 | ES 178 | 643627    | 1706.E22.gz43_216367 |
| M00055924B:E12 | ES 178 | 464129    | 1706.F01.gz43_216032 |
| M00055924C:A09 | ES 178 | 641484    | 1706.F03.gz43_216064 |
| M00055925A:C04 | ES 178 | 450840    | 1706.F11.gz43_216192 |
| M00055925B:D09 | ES 178 | 639154    | 1706.F20.gz43_216336 |
| M00055925B:D10 | ES 178 | 643332    | 1706.F21.gz43_216352 |
| M00055926B:A05 | ES 178 | 447123    | 1706.G12.gz43_216209 |
| M00055926C:A11 | ES 178 | 207552    | 1706.G18.gz43_216305 |
| M00055927B:D06 | ES 178 | 642308    | 1706.H05.gz43_216098 |
| M00055927D:E11 | ES 178 | 643239    | 1706.H10.gz43_216178 |
| M00055928A:C06 | ES 178 | 639038    | 1706.H15.gz43_216258 |
| M00055928A:E11 | ES 178 | 610893    | 1706.H17.gz43_216290 |
| M00055928B:E11 | ES 178 | 643383    | 1706.H21.gz43_216354 |
| M00055929A:C11 | ES 178 | 649954    | 1706.I14.gz43_216243 |
| M00055929B:E01 | ES 178 | 462089    | 1706.I17.gz43_216291 |
| M00055929D:F09 | ES 178 | 649954    | 1706.I24.gz43_216403 |
| M00055930A:G04 | ES 178 | 644629    | 1706.J05.gz43_216100 |
| M00055930C:D03 | ES 178 | 650938    | 1706.J09.gz43_216164 |
| M00055930C:F06 | ES 178 | 639596    | 1706.J10.gz43_216180 |
| M00055930C:H05 | ES 178 | 556925    | 1706.J15.gz43_216260 |
| M00055930D:B05 | ES 178 | 447520    | 1706.J16.gz43_216276 |
| M00055930D:B09 | ES 178 | 613626    | 1706.J17.gz43_216292 |
| M00055930D:F05 | ES 178 | 513211    | 1706.J21.gz43_216356 |
| M00055933A:E05 | ES 178 | 638808    | 1706.L07.gz43_216134 |
| M00055933B:B11 | ES 178 | 605114    | 1706.L10.gz43_216182 |
| M00055933B:G01 | ES 178 | 650245    | 1706.L11.gz43_216198 |
| M00055934C:E06 | ES 178 | 446795    | 1706.M06.gz43_216119 |
| M00055934D:H09 | ES 178 | 650470    | 1706.M12.gz43_216215 |
| M00055935B:H06 | ES 178 | 479604    | 1706.M20.gz43_216343 |
| M00055935C:E03 | ES 178 | 640672    | 1706.M23.gz43_216391 |
| M00055936C:B05 | ES 178 | 646596    | 1706.N07.gz43_216136 |
| M00055936C:D03 | ES 178 | 648379    | 1706.N08.gz43_216152 |
| M00055936D:F03 | ES 178 | 456920    | 1706.N11.gz43_216200 |
| M00055937A:F07 | ES 178 | 645092    | 1706.N17.gz43_216296 |
| M00055937C:C08 | ES 178 | 641716    | 1706.N21.gz43_216360 |
| M00055939A:B12 | ES 178 | 644732    | 1706.P02.gz43_216058 |
| M00055939B:A11 | ES 178 | 639901    | 1706.P07.gz43_216138 |
| M00055939D:D07 | ES 178 | 559905    | 1706.P13.gz43_216234 |
| M00055940B:A08 | ES 178 | 649873    | 1706.P19.gz43_216330 |
| M00055941B:A04 | ES 178 | 524546    | 1707.A12.gz43_216604 |
| M00055942B:H10 | ES 178 | 646317    | 1707.B04.gz43_216477 |
| M00055942D:A01 | ES 178 | 648782    | 1707.B12.gz43_216605 |

[illegible]742

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055973D:H11 | ES 178 | 452762    | 1708.D08.gz43_216927 |
| M00055974D:B01 | ES 178 | 645264    | 1708.D18.gz43_217087 |
| M00055976A:D04 | ES 178 | 645926    | 1708.E22.gz43_217152 |
| M00055976B:F01 | ES 178 | 647280    | 1708.F05.gz43_216881 |
| M00055977A:G09 | ES 178 | 647333    | 1708.F19.gz43_217105 |
|                |        |           |                      |
| M00055977B:F06 | ES 179 | 643723    | 1708.F21.gz43_217137 |
| M00055978A:H03 | ES 179 | 642058    | 1708.G11.gz43_216978 |
| M00055978B:F01 | ES 179 | 484355    | 1708.G16.gz43_217058 |
| M00055979B:G07 | ES 179 | 640092    | 1708.H12.gz43_216995 |
| M00055979C:B07 | ES 179 | 640204    | 1708.H15.gz43_217043 |
| M00055980A:H06 | ES 179 | 647539    | 1708.H23.gz43_217171 |
| M00055980B:B07 | ES 179 | 647924    | 1708.I01.gz43_216820 |
| M00055980C:G12 | ES 179 | 644354    | 1708.I08.gz43_216932 |
| M00055981D:B07 | ES 179 | 650513    | 1708.J07.gz43_216917 |
| M00055982A:G06 | ES 179 | 646013    | 1708.J17.gz43_217077 |
| M00055982C:A12 | ES 179 | 650018    | 1708.J24.gz43_217189 |
| M00055982C:H01 | ES 179 | 644226    | 1708.K04.gz43_216870 |
| M00055983C:C09 | ES 179 | 451709    | 1708.K14.gz43_217030 |
| M00055983D:A09 | ES 179 | 477790    | 1708.K18.gz43_217094 |
| M00055984A:F05 | ES 179 | 645848    | 1708.K24.gz43_217190 |
| M00055984D:E04 | ES 179 | 645746    | 1708.L08.gz43_216935 |
| M00055985A:B06 | ES 179 | 645288    | 1708.L10.gz43_216967 |
| M00055985B:C02 | ES 179 | 645427    | 1708.L13.gz43_217015 |
| M00055985B:G12 | ES 179 | 646126    | 1708.L16.gz43_217063 |
| M00055985D:E09 | ES 179 | 641484    | 1708.M02.gz43_216840 |
| M00055986A:F05 | ES 179 | 647539    | 1708.M09.gz43_216952 |
| M00055987B:F07 | ES 179 | 465209    | 1708.N06.gz43_216905 |
| M00055988A:A12 | ES 179 | 640179    | 1708.N15.gz43_217049 |
| M00055988A:E05 | ES 179 | 639359    | 1708.N21.gz43_217145 |
| M00055989A:C09 | ES 179 | 560349    | 1708.O11.gz43_216986 |
| M00055990A:F07 | ES 179 | 645920    | 1708.P01.gz43_216827 |
| M00055990D:B02 | ES 179 | 558452    | 1708.P12.gz43_217003 |
| M00055990D:G09 | ES 179 | 582549    | 1708.P15.gz43_217051 |
| M00055991A:D10 | ES 179 | 649309    | 1708.P18.gz43_217099 |
| M00055991A:H09 | ES 179 | 450123    | 1708.P20.gz43_217131 |
| M00055991C:H11 | ES 179 | 646212    | 1708.P24.gz43_217195 |
| M00055992A:D08 | ES 179 | 645662    | 1717.A08.gz43_218513 |
| M00055993A:E02 | ES 179 | 643288    | 1717.A19.gz43_218689 |
| M00055993D:F12 | ES 179 | 649556    | 1717.B06.gz43_218482 |
| M00055994A:G04 | ES 179 | 603388    | 1717.B11.gz43_218562 |
| M00055994B:B12 | ES 179 | 651119    | 1717.B15.gz43_218626 |
| M00055994C:E06 | ES 179 | 642887    | 1717.B23.gz43_218754 |
| M00055994C:F05 | ES 179 | 639377    | 1717.B24.gz43_218770 |

|  |  |  |  |
|--|--|--|--|
| $\begin{pmatrix} \text{CH}_3 & \text{CH}_3 \\   &   \\ \text{H}-\text{C} & -\text{C}-\text{H} \\   &   \\ \text{H} & \text{H} \end{pmatrix}$ | $\begin{pmatrix} \text{CH}_3 & \text{CH}_3 \\   &   \\ \text{H}-\text{C} & -\text{C}-\text{H} \\   &   \\ \text{H} & \text{H} \end{pmatrix}$ | $\begin{pmatrix} \text{CH}_3 & \text{CH}_3 \\   &   \\ \text{H}-\text{C} & -\text{C}-\text{H} \\   &   \\ \text{H} & \text{H} \end{pmatrix}$ | $\begin{pmatrix} \text{CH}_3 & \text{CH}_3 \\   &   \\ \text{H}-\text{C} & -\text{C}-\text{H} \\   &   \\ \text{H} & \text{H} \end{pmatrix}$ |
| butane   | isobutane  | neopentane   | isobutane  |

[illegible]



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056004D:F03 | ES 179 | 452775    | 1717.K03.gz43_218443 |
| M00056004D:F12 | ES 179 | 444454    | 1717.K04.gz43_218459 |
| M00056005B:H08 | ES 179 | 641167    | 1717.K20.gz43_218715 |
| M00056005C:F11 | ES 179 | 561836    | 1717.L03.gz43_218444 |
| M00056005D:C04 | ES 179 | 470462    | 1717.L07.gz43_218508 |
| M00056005D:F12 | ES 179 | 362177    | 1717.L10.gz43_218556 |
| M00056006A:E04 | ES 179 | 643440    | 1717.L15.gz43_218636 |
| M00056006A:G09 | ES 179 | 532307    | 1717.L18.gz43_218684 |
| M00056006B:A10 | ES 179 | 637977    | 1717.L19.gz43_218700 |
| M00056006B:B05 | ES 179 | 592941    | 1717.L20.gz43_218716 |
| M00056006B:C12 | ES 179 | 411885    | 1717.L24.gz43_218780 |
| M00056006D:C06 | ES 179 | 643239    | 1717.M06.gz43_218493 |
| M00056006D:D05 | ES 179 | 639940    | 1717.M07.gz43_218509 |
| M00056006D:E03 | ES 179 | 643477    | 1717.M10.gz43_218557 |
| M00056006D:F05 | ES 179 | 651083    | 1717.M11.gz43_218573 |
| M00056007A:B02 | ES 179 | 555736    | 1717.M16.gz43_218653 |
| M00056007A:G07 | ES 179 | 647194    | 1717.M22.gz43_218749 |
| M00056007B:C10 | ES 179 | 449713    | 1717.M24.gz43_218781 |
| M00056007B:E08 | ES 179 | 649701    | 1717.N03.gz43_218446 |
| M00056007C:A03 | ES 179 | 448418    | 1717.N05.gz43_218478 |
| M00056007D:F07 | ES 179 | 644022    | 1717.N13.gz43_218606 |
| M00056007D:H12 | ES 179 | 262760    | 1717.N14.gz43_218622 |
| M00056008A:H03 | ES 179 | 675319    | 1717.N17.gz43_218670 |
| M00056008B:E04 | ES 179 | 641283    | 1717.N21.gz43_218734 |
| M00056008B:G01 | ES 179 | 456627    | 1717.N24.gz43_218782 |
| M00056008B:G05 | ES 179 | 447802    | 1717.O02.gz43_218431 |
| M00056008C:D04 | ES 179 | 639178    | 1717.O04.gz43_218463 |
| M00056008C:D08 | ES 179 | 644030    | 1717.O05.gz43_218479 |
| M00056008D:D02 | ES 179 | 644612    | 1717.O13.gz43_218607 |
| M00056008D:D03 | ES 179 | 642260    | 1717.O14.gz43_218623 |
| M00056009A:H08 | ES 179 | 557895    | 1717.O18.gz43_218687 |
| M00056009C:F09 | ES 179 | 649860    | 1717.O23.gz43_218767 |
| M00056009D:A02 | ES 179 | 646143    | 1717.O24.gz43_218783 |
| M00056009D:C12 | ES 179 | 640709    | 1717.P01.gz43_218416 |
| M00056010A:E05 | ES 179 | 644972    | 1717.P05.gz43_218480 |
| M00056011A:C11 | ES 179 | 644949    | 1717.P13.gz43_218608 |
| M00056011B:A06 | ES 179 | 517274    | 1717.P17.gz43_218672 |
| M00056011B:E10 | ES 179 | 489426    | 1717.P19.gz43_218704 |
| M00056011C:D04 | ES 179 | 555172    | 1717.P22.gz43_218752 |
| M00056013A:C09 | ES 179 | 538808    | 1718.B12.gz43_218965 |
| M00056013D:D07 | ES 179 | 640181    | 1718.B21.gz43_219109 |
| M00056016C:F11 | ES 179 | 643744    | 1718.D04.gz43_218839 |
| M00056016D:E02 | ES 179 | 644967    | 1718.D07.gz43_218887 |
| M00056017A:B08 | ES 179 | 643975    | 1718.D09.gz43_218919 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056019B:A01 | ES 179 | 643510    | 1718.F02.gz43_218809 |
| M00056020B:C09 | ES 179 | 650348    | 1718.F23.gz43_219145 |
| M00056020C:H03 | ES 179 | 650391    | 1718.G06.gz43_218874 |
| M00056020D:D03 | ES 179 | 545509    | 1718.G08.gz43_218906 |
| M00056021A:H06 | ES 179 | 557344    | 1718.G17.gz43_219050 |
| M00056021C:H08 | ES 179 | 639629    | 1718.H03.gz43_218827 |
| M00056023D:D08 | ES 179 | 650749    | 1718.I21.gz43_219116 |
| M00056026B:H01 | ES 179 | 644982    | 1718.K18.gz43_219070 |
| M00056028D:F06 | ES 179 | 645883    | 1718.M11.gz43_218960 |
| M00056029B:H03 | ES 179 | 467057    | 1718.M20.gz43_219104 |
| M00056029D:D08 | ES 179 | 447659    | 1718.N06.gz43_218881 |
| M00056031D:E06 | ES 179 | 495942    | 1718.O14.gz43_219010 |
| M00056032B:H08 | ES 179 | 397399    | 1718.P04.gz43_218851 |
| M00056033A:C11 | ES 179 | 425455    | 1718.P13.gz43_218995 |
| M00056033C:H09 | ES 179 | 451993    | 1718.P24.gz43_219171 |
| M00056033D:F06 | ES 179 | 645973    | 1719.A03.gz43_219204 |
| M00056033D:G07 | ES 179 | 642198    | 1719.A04.gz43_219220 |
| M00056034A:G10 | ES 179 | 646048    | 1719.A10.gz43_219316 |
| M00056034C:D07 | ES 179 | 452325    | 1719.A17.gz43_219428 |
| M00056034C:H09 | ES 179 | 648390    | 1719.A21.gz43_219492 |
| M00056034D:E09 | ES 179 | 640559    | 1719.A23.gz43_219524 |
| M00056035B:A04 | ES 179 | 550376    | 1719.B03.gz43_219205 |
| M00056035B:D11 | ES 179 | 566745    | 1719.B06.gz43_219253 |
| M00056035B:E10 | ES 179 | 549786    | 1719.B07.gz43_219269 |
| M00056035C:H11 | ES 179 | 452504    | 1719.B15.gz43_219397 |
| M00056035D:C08 | ES 179 | 447645    | 1719.B17.gz43_219429 |
| M00056035D:G10 | ES 179 | 467597    | 1719.B21.gz43_219493 |
| M00056036B:B01 | ES 179 | 648045    | 1719.C01.gz43_219174 |
| M00056036B:F02 | ES 179 | 408428    | 1719.C05.gz43_219238 |
| M00056036D:B06 | ES 179 | 468689    | 1719.C14.gz43_219382 |
| M00056036D:D01 | ES 179 | 452729    | 1719.C15.gz43_219398 |
| M00056036D:F05 | ES 179 | 644054    | 1719.C17.gz43_219430 |
| M00056037A:D11 | ES 179 | 645530    | 1719.C20.gz43_219478 |
| M00056037A:E10 | ES 179 | 645707    | 1719.C22.gz43_219510 |
| M00056037B:G02 | ES 179 | 646088    | 1719.D03.gz43_219207 |
| M00056037C:D06 | ES 179 | 476077    | 1719.D09.gz43_219303 |
| M00056037C:G11 | ES 179 | 638912    | 1719.D10.gz43_219319 |
| M00056038B:G08 | ES 179 | 481614    | 1719.D15.gz43_219399 |
| M00056038D:F03 | ES 179 | 468330    | 1719.D21.gz43_219495 |
| M00056039A:A02 | ES 179 | 550365    | 1719.D23.gz43_219527 |
| M00056039A:F04 | ES 179 | 647976    | 1719.E01.gz43_219176 |
| M00056039B:C03 | ES 179 | 649293    | 1719.E04.gz43_219224 |
| M00056039C:D05 | ES 179 | 453804    | 1719.E08.gz43_219288 |
| M00056039C:G05 | ES 179 | 645973    | 1719.E11.gz43_219336 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056039C:H01 | ES 179 | 642852    | 1719.E12.gz43_219352 |
| M00056040A:E09 | ES 179 | 647144    | 1719.E15.gz43_219400 |
| M00056040C:A03 | ES 179 | 649118    | 1719.E20.gz43_219480 |
| M00056040C:B03 | ES 179 | 454438    | 1719.E21.gz43_219496 |
| M00056040C:C12 | ES 179 | 646687    | 1719.E22.gz43_219512 |
| M00056041A:C07 | ES 179 | 479722    | 1719.F05.gz43_219241 |
| M00056041B:F03 | ES 179 | 644817    | 1719.F10.gz43_219321 |
| M00056042B:A03 | ES 179 | 558432    | 1719.F23.gz43_219529 |
| M00056042B:B05 | ES 179 | 483266    | 1719.F24.gz43_219545 |
| M00056043A:A09 | ES 179 | 460727    | 1719.G13.gz43_219370 |
| M00056043A:H12 | ES 179 | 556325    | 1719.G16.gz43_219418 |
| M00056043B:E03 | ES 179 | 643897    | 1719.G19.gz43_219466 |
| M00056043C:G03 | ES 179 | 490898    | 1719.G24.gz43_219546 |
| M00056043D:E03 | ES 179 | 641193    | 1719.H04.gz43_219227 |
| M00056044B:A01 | ES 179 | 236965    | 1719.H12.gz43_219355 |
| M00056044C:C01 | ES 179 | 649900    | 1719.H15.gz43_219403 |
| M00056044D:B04 | ES 179 | 646579    | 1719.H19.gz43_219467 |
| M00056044D:F01 | ES 179 | 588502    | 1719.H22.gz43_219515 |
| M00056044D:G07 | ES 179 | 458683    | 1719.H24.gz43_219547 |
| M00056045A:D03 | ES 179 | 557676    | 1719.I01.gz43_219180 |
| M00056045C:C09 | ES 179 | 449814    | 1719.I10.gz43_219324 |
|                |        |           |                      |
| M00056045D:C09 | ES 180 | 402476    | 1719.I21.gz43_219500 |
| M00056045D:E06 | ES 180 | 462293    | 1719.I23.gz43_219532 |
| M00056046A:B04 | ES 180 | 644738    | 1719.J02.gz43_219197 |
| M00056046A:B12 | ES 180 | 461517    | 1719.J04.gz43_219229 |
| M00056046A:D12 | ES 180 | 559550    | 1719.J06.gz43_219261 |
| M00056046A:G08 | ES 180 | 452102    | 1719.J07.gz43_219277 |
| M00056046D:C11 | ES 180 | 645070    | 1719.K04.gz43_219230 |
| M00056047A:E09 | ES 180 | 650348    | 1719.K09.gz43_219310 |
| M00056047B:D11 | ES 180 | 639711    | 1719.K17.gz43_219438 |
| M00056047C:E03 | ES 180 | 639255    | 1719.K22.gz43_219518 |
| M00056047C:E08 | ES 180 | 454844    | 1719.K23.gz43_219534 |
| M00056047D:G10 | ES 180 | 557853    | 1719.L06.gz43_219263 |
| M00056048A:D12 | ES 180 | 644894    | 1719.L09.gz43_219311 |
| M00056048B:E01 | ES 180 | 451544    | 1719.L12.gz43_219359 |
| M00056048D:B09 | ES 180 | 456840    | 1719.L19.gz43_219471 |
| M00056049A:C11 | ES 180 | 612572    | 1719.L22.gz43_219519 |
| M00056049B:E11 | ES 180 | 645942    | 1719.M04.gz43_219232 |
| M00056049C:A08 | ES 180 | 642184    | 1719.M06.gz43_219264 |
| M00056049C:H04 | ES 180 | 643748    | 1719.M11.gz43_219344 |
| M00056049C:H07 | ES 180 | 554070    | 1719.M12.gz43_219360 |
| M00056049D:D03 | ES 180 | 645431    | 1719.M16.gz43_219424 |
| M00056049D:E01 | ES 180 | 641715    | 1719.M17.gz43_219440 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056050A:B05 | ES 180 | 644686    | 1719.M19.gz43_219472 |
| M00056050A:D02 | ES 180 | 558439    | 1719.M21.gz43_219504 |
| M00056050C:A09 | ES 180 | 644639    | 1719.N01.gz43_219185 |
| M00056050D:F04 | ES 180 | 406734    | 1719.N07.gz43_219281 |
| M00056051A:C03 | ES 180 | 649259    | 1719.N11.gz43_219345 |
| M00056051A:H11 | ES 180 | 528616    | 1719.N12.gz43_219361 |
| M00056051B:B03 | ES 180 | 645375    | 1719.N15.gz43_219409 |
| M00056051C:C09 | ES 180 | 595066    | 1719.N21.gz43_219505 |
| M00056051C:H09 | ES 180 | 587106    | 1719.N23.gz43_219537 |
| M00056051D:A07 | ES 180 | 640603    | 1719.N24.gz43_219553 |
| M00056051D:H02 | ES 180 | 645151    | 1719.O05.gz43_219250 |
| M00056052A:A11 | ES 180 | 649429    | 1719.O06.gz43_219266 |
| M00056052A:C07 | ES 180 | 644819    | 1719.O07.gz43_219282 |
| M00056052C:G07 | ES 180 | 647038    | 1719.O16.gz43_219426 |
| M00056052D:G01 | ES 180 | 641786    | 1719.O22.gz43_219522 |
| M00056053A:F01 | ES 180 | 506920    | 1719.P03.gz43_219219 |
| M00056053C:B04 | ES 180 | 645814    | 1719.P08.gz43_219299 |
| M00056053C:E04 | ES 180 | 232093    | 1719.P10.gz43_219331 |
| M00056053D:D07 | ES 180 | 497101    | 1719.P15.gz43_219411 |
| M00056054A:B06 | ES 180 | 644692    | 1719.P17.gz43_219443 |
| M00056054A:D09 | ES 180 | 465589    | 1719.P18.gz43_219459 |
| M00056054A:E03 | ES 180 | 467255    | 1719.P19.gz43_219475 |
| M00056054A:G07 | ES 180 | 647306    | 1719.P22.gz43_219523 |
| M00056054B:G05 | ES 180 | 645049    | 1720.A02.gz43_219572 |
| M00056054B:H11 | ES 180 | 648013    | 1720.A03.gz43_219588 |
| M00056054C:C09 | ES 180 | 558494    | 1720.A04.gz43_219604 |
| M00056054C:E12 | ES 180 | 454906    | 1720.A06.gz43_219636 |
| M00056055A:E04 | ES 180 | 447676    | 1720.A14.gz43_219764 |
| M00056055B:B06 | ES 180 | 640818    | 1720.A18.gz43_219828 |
| M00056057B:D01 | ES 180 | 466795    | 1720.C02.gz43_219574 |
| M00056057B:E12 | ES 180 | 644927    | 1720.C04.gz43_219606 |
| M00056057C:B02 | ES 180 | 648688    | 1720.C05.gz43_219622 |
| M00056057C:D06 | ES 180 | 456059    | 1720.C08.gz43_219670 |
| M00056057C:E01 | ES 180 | 447635    | 1720.C09.gz43_219686 |
| M00056057C:E12 | ES 180 | 644928    | 1720.C12.gz43_219734 |
| M00056057D:E11 | ES 180 | 641469    | 1720.C15.gz43_219782 |
| M00056058A:B07 | ES 180 | 558154    | 1720.C16.gz43_219798 |
| M00056058A:F08 | ES 180 | 467780    | 1720.C19.gz43_219846 |
| M00056058B:H09 | ES 180 | 452630    | 1720.C22.gz43_219894 |
| M00056059A:A02 | ES 180 | 644597    | 1720.D06.gz43_219639 |
| M00056059A:B01 | ES 180 | 649054    | 1720.D08.gz43_219671 |
| M00056059B:D10 | ES 180 | 473007    | 1720.D11.gz43_219719 |
| M00056060C:C06 | ES 180 | 448627    | 1720.E04.gz43_219608 |
| M00056060D:H11 | ES 180 | 642166    | 1720.E10.gz43_219704 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056061A:E05 | ES 180 | 644916    | 1720.E12.gz43_219736 |
| M00056061B:A03 | ES 180 | 641801    | 1720.E13.gz43_219752 |
| M00056062D:D08 | ES 180 | 446415    | 1720.F20.gz43_219865 |
| M00056062D:F12 | ES 180 | 643510    | 1720.G01.gz43_219562 |
| M00056063C:F10 | ES 180 | 375577    | 1720.G15.gz43_219786 |
| M00056063C:G11 | ES 180 | 650549    | 1720.G16.gz43_219802 |
| M00056065B:A02 | ES 180 | 641253    | 1720.H06.gz43_219643 |
| M00056065D:C11 | ES 180 | 643381    | 1720.H16.gz43_219803 |
| M00056066A:D03 | ES 180 | 553923    | 1720.H20.gz43_219867 |
| M00056066B:H04 | ES 180 | 14157     | 1720.I02.gz43_219580 |
| M00056066D:G04 | ES 180 | 461351    | 1720.I16.gz43_219804 |
| M00056067A:A12 | ES 180 | 455716    | 1720.I18.gz43_219836 |
| M00056067B:D08 | ES 180 | 645900    | 1720.I21.gz43_219884 |
| M00056068D:A06 | ES 180 | 644822    | 1720.J18.gz43_219837 |
| M00056068D:E06 | ES 180 | 641253    | 1720.J22.gz43_219901 |
| M00056069A:F01 | ES 180 | 460047    | 1720.K06.gz43_219646 |
| M00056069A:F06 | ES 180 | 644225    | 1720.K08.gz43_219678 |
| M00056069B:E04 | ES 180 | 645076    | 1720.K14.gz43_219774 |
| M00056070C:B09 | ES 180 | 644701    | 1720.L12.gz43_219743 |
| M00056072B:C06 | ES 180 | 551181    | 1720.M11.gz43_219728 |
| M00056072D:E08 | ES 180 | 649364    | 1720.M21.gz43_219888 |
| M00056073B:H11 | ES 180 | 636654    | 1720.N08.gz43_219681 |
| M00056074B:D12 | ES 180 | 643348    | 1720.N23.gz43_219921 |
| M00056074B:E11 | ES 180 | 641135    | 1720.O02.gz43_219586 |
| M00056074C:H08 | ES 180 | 487567    | 1720.O12.gz43_219746 |
| M00056074C:H09 | ES 180 | 651108    | 1720.O13.gz43_219762 |
| M00056077B:E03 | ES 180 | 448485    | 1729.A06.gz43_217713 |
| M00056077C:H02 | ES 180 | 646696    | 1729.A12.gz43_217809 |
| M00056078A:D07 | ES 180 | 479868    | 1729.A20.gz43_217937 |
| M00056078B:G02 | ES 180 | 650900    | 1729.B04.gz43_217682 |
| M00056079A:B01 | ES 180 | 613722    | 1729.B18.gz43_217906 |
| M00056080C:D04 | ES 180 | 464778    | 1729.C22.gz43_217971 |
| M00056081A:C05 | ES 180 | 649149    | 1729.D04.gz43_217684 |
| M00056081B:F09 | ES 180 | 640891    | 1729.D12.gz43_217812 |
| M00056082A:E12 | ES 180 | 560054    | 1729.E11.gz43_217797 |
| M00056082B:G07 | ES 180 | 570939    | 1729.E15.gz43_217861 |
| M00056083D:D11 | ES 180 | 647437    | 1729.F16.gz43_217878 |
| M00056084C:D11 | ES 180 | 649202    | 1729.G03.gz43_217671 |
| M00056087B:G12 | ES 180 | 644715    | 1729.H12.gz43_217816 |
| M00056087D:E04 | ES 180 | 446243    | 1729.H22.gz43_217976 |
| M00056087D:G07 | ES 180 | 649520    | 1729.H24.gz43_218008 |
| M00056089D:A09 | ES 180 | 454176    | 1729.J05.gz43_217706 |
| M00056089D:E07 | ES 180 | 649356    | 1729.J08.gz43_217754 |
| M00056091A:E04 | ES 180 | 644054    | 1729.K04.gz43_217691 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056091C:C06 | ES 180 | 644712    | 1729.K11.gz43_217803 |
| M00056091C:D09 | ES 180 | 645050    | 1729.K13.gz43_217835 |
| M00056091C:H03 | ES 180 | 464267    | 1729.K15.gz43_217867 |
| M00056091D:C12 | ES 180 | 645409    | 1729.K17.gz43_217899 |
| M00056091D:E10 | ES 180 | 649328    | 1729.K20.gz43_217947 |
| M00056092B:D10 | ES 180 | 535436    | 1729.L02.gz43_217660 |
| M00056092C:E12 | ES 180 | 710155    | 1729.L08.gz43_217756 |
| M00056093A:B12 | ES 180 | 650547    | 1729.L16.gz43_217884 |
| M00056093A:F08 | ES 180 | 418763    | 1729.L18.gz43_217916 |
| M00056093B:D03 | ES 180 | 645131    | 1729.L20.gz43_217948 |
| M00056095A:C02 | ES 180 | 644543    | 1729.M22.gz43_217981 |
| M00056095B:A07 | ES 180 | 643440    | 1729.N06.gz43_217726 |
| M00056095C:E02 | ES 180 | 644965    | 1729.N12.gz43_217822 |
| M00056095C:G07 | ES 180 | 649514    | 1729.N14.gz43_217854 |
| M00056097B:C04 | ES 180 | 649082    | 1729.P04.gz43_217696 |
| M00056097B:G01 | ES 180 | 649570    | 1729.P06.gz43_217728 |
| M00056098B:C04 | ES 180 | 649054    | 1729.P16.gz43_217888 |
| M00056098D:A08 | ES 180 | 597647    | 1729.P22.gz43_217984 |
| M00056120C:H04 | ES 180 | 648654    | 1731.A01.gz43_219940 |
| M00056120D:F01 | ES 180 | 644037    | 1731.A02.gz43_219956 |
| M00056121A:E05 | ES 180 | 464990    | 1731.A09.gz43_220068 |
| M00056121D:A12 | ES 180 | 642204    | 1731.A19.gz43_220228 |
| M00056121D:C11 | ES 180 | 648013    | 1731.A20.gz43_220244 |
| M00056122A:A05 | ES 180 | 503122    | 1731.A22.gz43_220276 |
| M00056122A:B05 | ES 180 | 589098    | 1731.A23.gz43_220292 |
| M00056122A:D02 | ES 180 | 648076    | 1731.A24.gz43_220308 |
| M00056122B:A07 | ES 180 | 639555    | 1731.B04.gz43_219989 |
| M00056122B:G01 | ES 180 | 648109    | 1731.B07.gz43_220037 |
| M00056122B:G09 | ES 180 | 627515    | 1731.B08.gz43_220053 |
| M00056122C:H12 | ES 180 | 460190    | 1731.B12.gz43_220117 |
| M00056122D:B07 | ES 180 | 557419    | 1731.B13.gz43_220133 |
| M00056122D:F10 | ES 180 | 646917    | 1731.B17.gz43_220197 |
| M00056123B:F02 | ES 180 | 531461    | 1731.B23.gz43_220293 |
| M00056123B:G05 | ES 180 | 648547    | 1731.C01.gz43_219942 |
| M00056123D:A07 | ES 180 | 627341    | 1731.C05.gz43_220006 |
| M00056124B:C12 | ES 180 | 477555    | 1731.C14.gz43_220150 |
| M00056124D:F06 | ES 180 | 515350    | 1731.C22.gz43_220278 |
| M00056124D:G03 | ES 180 | 455808    | 1731.C23.gz43_220294 |
| M00056125B:F01 | ES 180 | 465127    | 1731.D04.gz43_219991 |
| M00056127A:A10 | ES 180 | 422242    | 1731.D07.gz43_220039 |
| M00056127A:H03 | ES 180 | 644928    | 1731.D11.gz43_220103 |
| M00056127B:E11 | ES 180 | 638934    | 1731.D13.gz43_220135 |
| M00056127C:C02 | ES 180 | 639774    | 1731.D15.gz43_220167 |
| M00056127C:C06 | ES 180 | 649095    | 1731.D16.gz43_220183 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056127D:G10 | ES 180 | 643510    | 1731.D23.gz43_220295 |
| M00056128B:A07 | ES 180 | 456985    | 1731.E07.gz43_220040 |
| M00056128B:D03 | ES 180 | 452941    | 1731.E08.gz43_220056 |
| M00056128C:B11 | ES 180 | 646584    | 1731.E11.gz43_220104 |
| M00056128C:F02 | ES 180 | 647248    | 1731.E14.gz43_220152 |
| M00056129A:G01 | ES 180 | 647431    | 1731.E21.gz43_220264 |
| M00056129C:F09 | ES 180 | 476380    | 1731.F03.gz43_219977 |
| M00056130B:E11 | ES 180 | 646785    | 1731.F13.gz43_220137 |
| M00056130C:C12 | ES 180 | 649299    | 1731.F15.gz43_220169 |
| M00056130C:F08 | ES 180 | 647290    | 1731.F16.gz43_220185 |
| M00056130D:E06 | ES 180 | 556336    | 1731.F22.gz43_220281 |
| M00056131A:E09 | ES 180 | 453726    | 1731.G05.gz43_220010 |
| M00056131B:E01 | ES 180 | 562378    | 1731.G12.gz43_220122 |
| M00056131C:H03 | ES 180 | 649735    | 1731.G16.gz43_220186 |
| M00056131D:B02 | ES 180 | 503628    | 1731.G19.gz43_220234 |
| M00056132B:C12 | ES 180 | 635354    | 1731.H02.gz43_219963 |
| M00056132C:F04 | ES 180 | 557026    | 1731.H06.gz43_220027 |
| M00056133B:F01 | ES 180 | 642936    | 1731.H18.gz43_220219 |
| M00056133D:D09 | ES 180 | 463824    | 1731.I01.gz43_219948 |
| M00056134A:D04 | ES 180 | 640695    | 1731.I07.gz43_220044 |
| M00056134B:B10 | ES 180 | 640737    | 1731.I10.gz43_220092 |
| M00056134C:C06 | ES 180 | 470006    | 1731.I14.gz43_220156 |
| M00056134D:B07 | ES 180 | 708175    | 1731.I21.gz43_220268 |
| M00056134D:F02 | ES 180 | 649482    | 1731.I24.gz43_220316 |
| M00056134D:G07 | ES 180 | 711493    | 1731.J02.gz43_219965 |
| M00056134D:G11 | ES 180 | 649617    | 1731.J03.gz43_219981 |
| M00056135B:E03 | ES 180 | 459521    | 1731.J10.gz43_220093 |
| M00056135C:C05 | ES 180 | 646039    | 1731.J16.gz43_220189 |
| M00056135C:C08 | ES 180 | 642650    | 1731.J17.gz43_220205 |
| M00056135C:H06 | ES 180 | 557867    | 1731.J19.gz43_220237 |
| M00056136A:B11 | ES 180 | 648996    | 1731.J23.gz43_220301 |
| M00056136D:B08 | ES 180 | 641957    | 1731.K06.gz43_220030 |
| M00056137B:F07 | ES 180 | 648311    | 1731.K14.gz43_220158 |
| M00056137B:F11 | ES 180 | 478393    | 1731.K15.gz43_220174 |
| M00056137C:A01 | ES 180 | 642275    | 1731.K17.gz43_220206 |
| M00056137C:E01 | ES 180 | 639395    | 1731.K19.gz43_220238 |
| M00056137C:G02 | ES 180 | 645367    | 1731.K20.gz43_220254 |
|                |        |           |                      |
| M00056137D:H05 | ES 181 | 648742    | 1731.L02.gz43_219967 |
| M00056138A:B11 | ES 181 | 458938    | 1731.L04.gz43_219999 |
| M00056138B:F05 | ES 181 | 549691    | 1731.L10.gz43_220095 |
| M00056138D:G08 | ES 181 | 651015    | 1731.L17.gz43_220207 |
| M00056139A:D12 | ES 181 | 647232    | 1731.L20.gz43_220255 |
| M00056139D:E05 | ES 181 | 648341    | 1731.M08.gz43_220064 |





Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056158C:F09 | ES 181 | 650987    | 1732.J06.gz43_220413 |
| M00056159A:A08 | ES 181 | 644856    | 1732.J14.gz43_220541 |
| M00056159A:E03 | ES 181 | 650909    | 1732.J16.gz43_220573 |
| M00056159B:E06 | ES 181 | 648774    | 1732.J21.gz43_220653 |
| M00056159C:C11 | ES 181 | 459260    | 1732.J23.gz43_220685 |
| M00056160B:D06 | ES 181 | 414821    | 1732.K09.gz43_220462 |
| M00056160C:F12 | ES 181 | 463966    | 1732.K15.gz43_220558 |
| M00056160C:G01 | ES 181 | 645100    | 1732.K16.gz43_220574 |
| M00056160D:C06 | ES 181 | 649991    | 1732.K20.gz43_220638 |
| M00056161C:G06 | ES 181 | 650348    | 1732.L12.gz43_220511 |
| M00056161C:H10 | ES 181 | 468262    | 1732.L13.gz43_220527 |
| M00056162A:B06 | ES 181 | 467972    | 1732.L19.gz43_220623 |
| M00056162A:C09 | ES 181 | 649947    | 1732.L20.gz43_220639 |
| M00056162A:E09 | ES 181 | 555634    | 1732.L21.gz43_220655 |
| M00056162A:F01 | ES 181 | 634409    | 1732.L23.gz43_220687 |
| M00056162A:G09 | ES 181 | 584499    | 1732.L24.gz43_220703 |
| M00056162C:F02 | ES 181 | 647412    | 1732.M07.gz43_220432 |
| M00056162D:A01 | ES 181 | 649782    | 1732.M11.gz43_220496 |
| M00056162D:D03 | ES 181 | 650116    | 1732.M13.gz43_220528 |
| M00056162D:D06 | ES 181 | 380477    | 1732.M14.gz43_220544 |
| M00056163A:B10 | ES 181 | 649883    | 1732.M17.gz43_220592 |
| M00056164A:H03 | ES 181 | 224092    | 1732.N20.gz43_220641 |
| M00056165C:B11 | ES 181 | 650534    | 1732.O13.gz43_220530 |
| M00056165D:D09 | ES 181 | 649578    | 1732.O15.gz43_220562 |
| M00056167C:H06 | ES 181 | 414006    | 1732.P18.gz43_220611 |
| M00056168A:C06 | ES 181 | 558915    | 1741.A01.gz43_220708 |
| M00056168C:A05 | ES 181 | 649795    | 1741.A09.gz43_220836 |
| M00056169B:C02 | ES 181 | 458683    | 1741.A21.gz43_221028 |
| M00056169C:F07 | ES 181 | 458085    | 1741.B05.gz43_220773 |
| M00056169D:A03 | ES 181 | 555771    | 1741.B08.gz43_220821 |
| M00056169D:D05 | ES 181 | 648777    | 1741.B12.gz43_220885 |
| M00056169D:H05 | ES 181 | 650800    | 1741.B16.gz43_220949 |
| M00056170B:B09 | ES 181 | 642256    | 1741.B24.gz43_221077 |
| M00056170B:C04 | ES 181 | 602324    | 1741.C01.gz43_220710 |
| M00056170C:C09 | ES 181 | 394772    | 1741.C06.gz43_220790 |
| M00056171A:H01 | ES 181 | 646173    | 1741.C20.gz43_221014 |
| M00056171C:A08 | ES 181 | 650063    | 1741.D02.gz43_220727 |
| M00056172A:H06 | ES 181 | 561747    | 1741.D14.gz43_220919 |
| M00056172B:A12 | ES 181 | 648855    | 1741.D15.gz43_220935 |
| M00056173D:C05 | ES 181 | 646699    | 1741.E07.gz43_220808 |
| M00056174B:D02 | ES 181 | 646915    | 1741.E14.gz43_220920 |
| M00056174B:E02 | ES 181 | 647086    | 1741.E16.gz43_220952 |
| M00056174B:E04 | ES 181 | 640285    | 1741.E17.gz43_220968 |
| M00056174B:H11 | ES 181 | 557010    | 1741.E20.gz43_221016 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056174C:F06 | ES 181 | 479997    | 1741.E24.gz43_221080 |
| M00056174C:H09 | ES 181 | 648063    | 1741.F04.gz43_220761 |
| M00056175A:A06 | ES 181 | 453768    | 1741.F10.gz43_220857 |
| M00056175A:C04 | ES 181 | 649136    | 1741.F11.gz43_220873 |
| M00056175C:A10 | ES 181 | 645288    | 1741.F19.gz43_221001 |
| M00056175C:B11 | ES 181 | 650146    | 1741.F20.gz43_221017 |
| M00056175D:A06 | ES 181 | 648820    | 1741.F24.gz43_221081 |
| M00056175D:E05 | ES 181 | 649299    | 1741.G03.gz43_220746 |
| M00056176A:D06 | ES 181 | 593173    | 1741.G07.gz43_220810 |
| M00056176B:B05 | ES 181 | 457272    | 1741.G10.gz43_220858 |
| M00056176B:E10 | ES 181 | 446289    | 1741.G12.gz43_220890 |
| M00056176C:B11 | ES 181 | 648865    | 1741.G14.gz43_220922 |
| M00056177A:C10 | ES 181 | 140459    | 1741.G19.gz43_221002 |
| M00056177A:D12 | ES 181 | 499690    | 1741.G20.gz43_221018 |
| M00056177A:H01 | ES 181 | 610986    | 1741.G23.gz43_221066 |
| M00056177C:E08 | ES 181 | 639996    | 1741.H06.gz43_220795 |
| M00056178B:A07 | ES 181 | 642557    | 1741.H14.gz43_220923 |
| M00056178B:A11 | ES 181 | 638730    | 1741.H15.gz43_220939 |
| M00056178B:H08 | ES 181 | 459923    | 1741.H17.gz43_220971 |
| M00056178C:C02 | ES 181 | 464778    | 1741.H18.gz43_220987 |
| M00056178C:E12 | ES 181 | 584745    | 1741.H20.gz43_221019 |
| M00056178C:F02 | ES 181 | 640922    | 1741.H21.gz43_221035 |
| M00056179A:D12 | ES 181 | 379805    | 1741.I08.gz43_220828 |
| M00056179B:H12 | ES 181 | 639886    | 1741.I14.gz43_220924 |
| M00056180B:A06 | ES 181 | 644053    | 1741.I23.gz43_221068 |
| M00056180B:D05 | ES 181 | 492982    | 1741.J02.gz43_220733 |
| M00056180B:F11 | ES 181 | 641193    | 1741.J04.gz43_220765 |
| M00056180D:E06 | ES 181 | 378694    | 1741.J10.gz43_220861 |
| M00056180D:F05 | ES 181 | 449452    | 1741.J12.gz43_220893 |
| M00056180D:G07 | ES 181 | 183842    | 1741.J14.gz43_220925 |
| M00056181A:B05 | ES 181 | 471836    | 1741.J16.gz43_220957 |
| M00056181A:E07 | ES 181 | 452729    | 1741.J17.gz43_220973 |
| M00056181B:B02 | ES 181 | 640514    | 1741.J19.gz43_221005 |
| M00056181B:D06 | ES 181 | 645521    | 1741.J20.gz43_221021 |
| M00056181B:E11 | ES 181 | 561793    | 1741.J21.gz43_221037 |
| M00056181C:D02 | ES 181 | 645578    | 1741.J22.gz43_221053 |
| M00056182A:B04 | ES 181 | 557353    | 1741.K02.gz43_220734 |
| M00056182A:G11 | ES 181 | 643206    | 1741.K07.gz43_220814 |
| M00056182B:G12 | ES 181 | 460506    | 1741.K09.gz43_220846 |
| M00056182C:F08 | ES 181 | 469409    | 1741.K14.gz43_220926 |
| M00056182D:A07 | ES 181 | 641525    | 1741.K15.gz43_220942 |
| M00056183A:B09 | ES 181 | 459974    | 1741.K19.gz43_221006 |
| M00056183B:G11 | ES 181 | 561856    | 1741.L04.gz43_220767 |
| M00056183C:F01 | ES 181 | 710362    | 1741.L08.gz43_220831 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056183C:F11 | ES 181 | 642840    | 1741.L09.gz43_220847 |
| M00056184A:B11 | ES 181 | 649702    | 1741.L14.gz43_220927 |
| M00056184B:D08 | ES 181 | 463487    | 1741.L18.gz43_220991 |
| M00056184B:H08 | ES 181 | 446987    | 1741.L20.gz43_221023 |
| M00056184C:A09 | ES 181 | 647688    | 1741.L22.gz43_221055 |
| M00056184C:C03 | ES 181 | 650975    | 1741.L24.gz43_221087 |
| M00056184C:C07 | ES 181 | 559349    | 1741.M01.gz43_220720 |
| M00056184C:E08 | ES 181 | 642631    | 1741.M04.gz43_220768 |
| M00056184C:H03 | ES 181 | 646309    | 1741.M07.gz43_220816 |
| M00056184D:D06 | ES 181 | 555655    | 1741.M11.gz43_220880 |
| M00056185B:B06 | ES 181 | 639132    | 1741.M23.gz43_221072 |
| M00056185D:C01 | ES 181 | 553023    | 1741.N07.gz43_220817 |
| M00056185D:C06 | ES 181 | 649085    | 1741.N08.gz43_220833 |
| M00056185D:D06 | ES 181 | 502683    | 1741.N09.gz43_220849 |
| M00056185D:G07 | ES 181 | 649577    | 1741.N12.gz43_220897 |
| M00056186A:B09 | ES 181 | 646581    | 1741.N14.gz43_220929 |
| M00056186B:C03 | ES 181 | 648491    | 1741.N20.gz43_221025 |
| M00056186B:H09 | ES 181 | 644801    | 1741.N24.gz43_221089 |
| M00056186D:G05 | ES 181 | 649705    | 1741.O07.gz43_220818 |
| M00056187B:H02 | ES 181 | 644819    | 1741.O12.gz43_220898 |
| M00056188A:E05 | ES 181 | 641945    | 1741.O21.gz43_221042 |
| M00056188B:D04 | ES 181 | 642164    | 1741.P01.gz43_220723 |
| M00056188B:E07 | ES 181 | 648344    | 1741.P04.gz43_220771 |
| M00056188B:E12 | ES 181 | 639520    | 1741.P05.gz43_220787 |
| M00056188C:D02 | ES 181 | 650188    | 1741.P08.gz43_220835 |
| M00056188C:G06 | ES 181 | 640443    | 1741.P11.gz43_220883 |
| M00056188C:H04 | ES 181 | 648665    | 1741.P12.gz43_220899 |
| M00056189A:H09 | ES 181 | 562152    | 1741.P18.gz43_220995 |
| M00056189B:A01 | ES 181 | 465594    | 1741.P19.gz43_221011 |
| M00056191A:H04 | ES 181 | 646499    | 1742.B04.gz43_221141 |
| M00056191B:E08 | ES 181 | 453762    | 1742.B08.gz43_221205 |
| M00056192A:D01 | ES 181 | 645560    | 1742.B19.gz43_221381 |
| M00056195C:F12 | ES 181 | 644916    | 1742.E06.gz43_221176 |
| M00056195D:D07 | ES 181 | 649402    | 1742.E12.gz43_221272 |
| M00056196C:B03 | ES 181 | 397363    | 1742.F03.gz43_221129 |
| M00056196C:G12 | ES 181 | 648590    | 1742.F09.gz43_221225 |
| M00056197C:H01 | ES 181 | 640101    | 1742.F20.gz43_221401 |
| M00056198A:B05 | ES 181 | 637387    | 1742.G01.gz43_221098 |
| M00056200D:D05 | ES 181 | 452066    | 1742.H21.gz43_221419 |
| M00056201C:C03 | ES 181 | 640913    | 1742.I08.gz43_221212 |
| M00056203D:F05 | ES 181 | 463168    | 1742.J03.gz43_221133 |
| M00056203D:H03 | ES 181 | 570939    | 1742.J04.gz43_221149 |
| M00056204A:B08 | ES 181 | 456920    | 1742.J05.gz43_221165 |
| M00056204A:C04 | ES 181 | 647991    | 1742.J07.gz43_221197 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056217D:B07 | ES 182 | 562625    | 1743.C16.gz43_221718 |
| M00056218A:G11 | ES 182 | 448780    | 1743.C22.gz43_221814 |
| M00056218C:C02 | ES 182 | 648351    | 1743.D05.gz43_221543 |
| M00056218D:H06 | ES 182 | 411603    | 1743.D14.gz43_221687 |
| M00056220A:H04 | ES 182 | 644916    | 1743.E16.gz43_221720 |
| M00056220B:F11 | ES 182 | 722253    | 1743.F01.gz43_221481 |
| M00056222A:E05 | ES 182 | 570052    | 1743.G11.gz43_221642 |
| M00056222D:C06 | ES 182 | 574166    | 1743.G18.gz43_221754 |
| M00056223A:B11 | ES 182 | 648989    | 1743.G23.gz43_221834 |
| M00056223A:C03 | ES 182 | 442347    | 1743.G24.gz43_221850 |
| M00056223A:D10 | ES 182 | 574166    | 1743.H01.gz43_221483 |
| M00056223A:H07 | ES 182 | 649709    | 1743.H03.gz43_221515 |
| M00056223C:C07 | ES 182 | 408428    | 1743.H11.gz43_221643 |
| M00056224B:F01 | ES 182 | 645549    | 1743.H17.gz43_221739 |
| M00056224D:E08 | ES 182 | 453470    | 1743.H23.gz43_221835 |
| M00056225A:D08 | ES 182 | 556635    | 1743.I01.gz43_221484 |
| M00056225B:A11 | ES 182 | 618670    | 1743.I06.gz43_221564 |
| M00056227C:A01 | ES 182 | 648777    | 1743.J20.gz43_221789 |
| M00056227D:A02 | ES 182 | 578718    | 1743.K04.gz43_221534 |
| M00056228A:A02 | ES 182 | 447892    | 1743.K09.gz43_221614 |
| M00056228C:B04 | ES 182 | 465536    | 1743.K24.gz43_221854 |
| M00056229C:F05 | ES 182 | 33738     | 1743.L16.gz43_221727 |
| M00056231B:E01 | ES 182 | 649351    | 1743.M11.gz43_221648 |
| M00056232B:A11 | ES 182 | 451487    | 1743.M21.gz43_221808 |
| M00056232B:C04 | ES 182 | 649030    | 1743.M23.gz43_221840 |
| M00056232C:E06 | ES 182 | 649272    | 1743.N04.gz43_221537 |
| M00056232D:C08 | ES 182 | 502413    | 1743.N09.gz43_221617 |
| M00056235A:C12 | ES 182 | 648816    | 1743.O22.gz43_221826 |
| M00056236A:G12 | ES 182 | 706245    | 1743.P07.gz43_221587 |
| M00056236B:B03 | ES 182 | 636876    | 1743.P09.gz43_221619 |
| M00056237B:D04 | ES 182 | 703978    | 1744.A06.gz43_221940 |
| M00056237C:C05 | ES 182 | 470292    | 1744.A10.gz43_222004 |
| M00056238A:A03 | ES 182 | 707483    | 1744.A19.gz43_222148 |
| M00056238C:C11 | ES 182 | 649042    | 1744.B08.gz43_221973 |
| M00056239A:D06 | ES 182 | 648159    | 1744.B14.gz43_222069 |
| M00056240B:F08 | ES 182 | 649396    | 1744.C10.gz43_222006 |
| M00056240D:H07 | ES 182 | 447272    | 1744.C15.gz43_222086 |
| M00056242D:A02 | ES 182 | 648989    | 1744.E04.gz43_221912 |
| M00056243C:G10 | ES 182 | 651073    | 1744.E22.gz43_222200 |
| M00056244A:A01 | ES 182 | 650463    | 1744.F03.gz43_221897 |
| M00056244A:B01 | ES 182 | 650549    | 1744.F04.gz43_221913 |
| M00056245A:D11 | ES 182 | 650463    | 1744.F24.gz43_222233 |
| M00056246A:E01 | ES 182 | 637387    | 1744.G17.gz43_222122 |
| M00056246C:G07 | ES 182 | 419255    | 1744.H08.gz43_221979 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056246D:A07 | ES 182 | 549178    | 1744.H09.gz43_221995 |
| M00056247A:D02 | ES 182 | 162981    | 1744.H17.gz43_222123 |
| M00056247A:F07 | ES 182 | 457221    | 1744.H18.gz43_222139 |
| M00056247B:C11 | ES 182 | 650018    | 1744.H21.gz43_222187 |
| M00056249A:F11 | ES 182 | 650919    | 1744.I24.gz43_222236 |
| M00056249A:H07 | ES 182 | 645872    | 1744.J02.gz43_221885 |
| M00056249B:C02 | ES 182 | 506719    | 1744.J03.gz43_221901 |
| M00056249C:E06 | ES 182 | 650860    | 1744.J10.gz43_222013 |
| M00056250C:A08 | ES 182 | 408961    | 1744.K04.gz43_221918 |
| M00056250C:D05 | ES 182 | 650661    | 1744.K07.gz43_221966 |
| M00056251B:A12 | ES 182 | 643327    | 1744.K14.gz43_222078 |
| M00056251B:B07 | ES 182 | 452646    | 1744.K15.gz43_222094 |
| M00056251C:H04 | ES 182 | 586794    | 1744.K24.gz43_222238 |
| M00056253A:F12 | ES 182 | 648996    | 1744.M08.gz43_221984 |
| M00056253B:H04 | ES 182 | 639119    | 1744.M14.gz43_222080 |
| M00056253C:C04 | ES 182 | 703217    | 1744.M18.gz43_222144 |
| M00056253D:G04 | ES 182 | 641874    | 1744.M23.gz43_222224 |
| M00056254A:F04 | ES 182 | 651051    | 1744.N02.gz43_221889 |
| M00056254D:C04 | ES 182 | 451361    | 1744.N09.gz43_222001 |
| M00056255B:F09 | ES 182 | 559324    | 1744.N18.gz43_222145 |
| M00056255C:C04 | ES 182 | 645472    | 1744.N20.gz43_222177 |
| M00056256A:C02 | ES 182 | 645271    | 1744.O01.gz43_221874 |
| M00056256C:D12 | ES 182 | 643944    | 1744.O17.gz43_222130 |
| M00056258A:A11 | ES 182 | 464091    | 1744.P19.gz43_222163 |
| M00056258A:E10 | ES 182 | 610269    | 1744.P23.gz43_222227 |
| M00056258C:D07 | ES 182 | 633594    | 1753.A05.gz43_222308 |
| M00056258D:H06 | ES 182 | 648590    | 1753.A12.gz43_222420 |
| M00056259A:E08 | ES 182 | 555021    | 1753.A17.gz43_222500 |
| M00056259C:E03 | ES 182 | 459914    | 1753.A24.gz43_222612 |
| M00056260C:E11 | ES 182 | 460245    | 1753.B14.gz43_222453 |
| M00056260C:F08 | ES 182 | 552839    | 1753.B17.gz43_222501 |
| M00056261A:F12 | ES 182 | 645271    | 1753.C03.gz43_222278 |
| M00056262A:B07 | ES 182 | 647897    | 1753.C18.gz43_222518 |
| M00056262B:B08 | ES 182 | 403111    | 1753.C23.gz43_222598 |
| M00056262D:B11 | ES 182 | 446572    | 1753.D04.gz43_222295 |
| M00056262D:G08 | ES 182 | 648534    | 1753.D06.gz43_222327 |
| M00056263A:D08 | ES 182 | 649262    | 1753.D10.gz43_222391 |
| M00056263B:E10 | ES 182 | 486452    | 1753.D17.gz43_222503 |
| M00056264A:G05 | ES 182 | 650679    | 1753.E03.gz43_222280 |
| M00056264B:C03 | ES 182 | 648063    | 1753.E06.gz43_222328 |
| M00056265A:E01 | ES 182 | 646609    | 1753.E15.gz43_222472 |
| M00056267D:B09 | ES 182 | 562173    | 1753.G15.gz43_222474 |
| M00056268D:G07 | ES 182 | 639520    | 1753.H12.gz43_222427 |
| M00056269D:H01 | ES 182 | 639003    | 1753.I03.gz43_222284 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056270A:B09 | ES 182 | 647828    | 1753.I06.gz43_222332 |
| M00056270B:F02 | ES 182 | 557857    | 1753.I12.gz43_222428 |
| M00056271A:G04 | ES 182 | 466894    | 1753.I24.gz43_222620 |
| M00056271C:C06 | ES 182 | 528162    | 1753.J04.gz43_222301 |
| M00056272D:C03 | ES 182 | 642812    | 1753.J22.gz43_222589 |
| M00056273A:A07 | ES 182 | 642200    | 1753.K02.gz43_222270 |
| M00056274D:E08 | ES 182 | 476380    | 1753.L06.gz43_222335 |
| M00056276A:D05 | ES 182 | 580179    | 1753.M10.gz43_222400 |
| M00056276A:F05 | ES 182 | 648442    | 1753.M14.gz43_222464 |
| M00056276D:B12 | ES 182 | 507066    | 1753.M17.gz43_222512 |
| M00056277B:G05 | ES 182 | 648609    | 1753.N05.gz43_222321 |
| M00056279B:G06 | ES 182 | 649592    | 1753.O18.gz43_222530 |
| M00056280B:E09 | ES 182 | 649349    | 1753.P13.gz43_222451 |
| M00056280D:C06 | ES 182 | 509202    | 1753.P23.gz43_222611 |
| M00056284C:A11 | ES 182 | 556497    | 1754.C23.gz43_222982 |
| M00056285B:B01 | ES 182 | 647839    | 1754.D07.gz43_222727 |
| M00056286A:A12 | ES 182 | 644829    | 1754.D20.gz43_222935 |
| M00056286B:A04 | ES 182 | 559857    | 1754.D24.gz43_222999 |
| M00056286C:H08 | ES 182 | 554276    | 1754.E10.gz43_222776 |
| M00056287C:H08 | ES 182 | 647462    | 1754.E21.gz43_222952 |
| M00056288A:E12 | ES 182 | 446732    | 1754.E23.gz43_222984 |
| M00056288D:D03 | ES 182 | 647759    | 1754.F11.gz43_222793 |
| M00056289B:E05 | ES 182 | 555998    | 1754.F20.gz43_222937 |
| M00056289B:F09 | ES 182 | 648524    | 1754.F21.gz43_222953 |
| M00056291B:G01 | ES 182 | 646060    | 1754.H12.gz43_222811 |
| M00056291C:C11 | ES 182 | 598471    | 1754.H19.gz43_222923 |
| M00056292D:C06 | ES 182 | 644862    | 1754.I07.gz43_222732 |
| M00056293B:F02 | ES 182 | 449882    | 1754.I19.gz43_222924 |
| M00056294B:G06 | ES 182 | 419801    | 1754.J20.gz43_222941 |
| M00056295C:F12 | ES 182 | 492587    | 1754.K07.gz43_222734 |
| M00056296A:A07 | ES 182 | 646387    | 1754.K12.gz43_222814 |
| M00056297D:B10 | ES 182 | 467709    | 1754.L23.gz43_222991 |
| M00056298A:H02 | ES 182 | 651057    | 1754.M07.gz43_222736 |
| M00056298B:F10 | ES 182 | 639804    | 1754.M12.gz43_222816 |
| M00056298D:G01 | ES 182 | 462865    | 1754.M22.gz43_222976 |
| M00056299C:F06 | ES 182 | 643984    | 1754.N10.gz43_222785 |
| M00056299D:A02 | ES 182 | 462986    | 1754.N12.gz43_222817 |
| M00056300A:E06 | ES 182 | 485480    | 1754.N22.gz43_222977 |
| M00056300B:A11 | ES 182 | 651115    | 1754.N24.gz43_223009 |
| M00056301C:H08 | ES 182 | 645844    | 1754.O22.gz43_222978 |
| M00056302D:E12 | ES 182 | 644836    | 1754.P22.gz43_222979 |
| M00056303A:B03 | ES 182 | 462398    | 1754.P23.gz43_222995 |
| M00056304A:H04 | ES 182 | 467364    | 1755.A17.gz43_223268 |
| M00056304B:C05 | ES 182 | 648683    | 1755.A18.gz43_223284 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056304C:C03 | ES 182 | 645073    | 1755.A23.gz43_223364 |
| M00056305A:A02 | ES 182 | 524261    | 1755.B06.gz43_223093 |
| M00056305B:F09 | ES 182 | 644880    | 1755.B14.gz43_223221 |
| M00056305D:C05 | ES 182 | 463595    | 1755.B20.gz43_223317 |
| M00056305D:E08 | ES 182 | 641681    | 1755.B22.gz43_223349 |
| M00056307A:F07 | ES 182 | 644660    | 1755.D05.gz43_223079 |
| M00056307D:G02 | ES 182 | 642145    | 1755.D17.gz43_223271 |
| M00056308A:C01 | ES 182 | 650639    | 1755.D20.gz43_223319 |
| M00056308C:C12 | ES 182 | 469802    | 1755.E12.gz43_223192 |
| M00056310A:C10 | ES 182 | 557052    | 1755.E15.gz43_223240 |
| M00056310B:E06 | ES 182 | 649514    | 1755.E22.gz43_223352 |
| M00056311C:G06 | ES 182 | 558879    | 1755.G04.gz43_223066 |
| M00056313A:B06 | ES 182 | 44503     | 1755.H16.gz43_223259 |
| M00056319A:A11 | ES 182 | 635062    | 1755.I11.gz43_223180 |
| M00056320C:E08 | ES 182 | 556444    | 1755.K06.gz43_223102 |
| M00056320D:F07 | ES 182 | 642260    | 1755.K10.gz43_223166 |
| M00056323A:C09 | ES 182 | 647951    | 1755.K13.gz43_223214 |
| M00056323A:G03 | ES 182 | 569195    | 1755.K15.gz43_223246 |
| M00056323A:H05 | ES 182 | 550403    | 1755.K16.gz43_223262 |
| M00056326C:G07 | ES 182 | 639378    | 1755.M08.gz43_223136 |
| M00056328B:E07 | ES 182 | 444222    | 1755.M16.gz43_223264 |
| M00056328D:B01 | ES 182 | 447126    | 1755.M19.gz43_223312 |
| M00056329C:B09 | ES 182 | 647248    | 1755.N05.gz43_223089 |
| M00056330B:C02 | ES 182 | 452075    | 1755.N14.gz43_223233 |
| M00056333A:E09 | ES 182 | 460929    | 1755.O09.gz43_223154 |
| M00056333C:D08 | ES 182 | 446520    | 1755.O23.gz43_223378 |
| M00056338B:B08 | ES 182 | 606129    | 1755.P24.gz43_223395 |
|                |        |           |                      |
| M00042751B:C07 | ES 183 | 179760    | 1767.A07.gz43_224579 |
| M00042751D:D03 | ES 183 | 449215    | 1767.A14.gz43_224691 |
| M00042751D:F09 | ES 183 | 484355    | 1767.A16.gz43_224723 |
| M00042751D:G06 | ES 183 | 485431    | 1767.A18.gz43_224755 |
| M00042751D:G09 | ES 183 | 485441    | 1767.A19.gz43_224771 |
| M00042752A:B04 | ES 183 | 449275    | 1767.A20.gz43_224787 |
| M00042753B:C08 | ES 183 | 480960    | 1767.B13.gz43_224676 |
| M00042753C:G12 | ES 183 | 485183    | 1767.B19.gz43_224772 |
| M00042753D:A12 | ES 183 | 479061    | 1767.B20.gz43_224788 |
| M00042753D:H11 | ES 183 | 449746    | 1767.B23.gz43_224836 |
| M00042754B:G02 | ES 183 | 485512    | 1767.C02.gz43_224501 |
| M00042755A:D09 | ES 183 | 481614    | 1767.C06.gz43_224565 |
| M00042755A:H04 | ES 183 | 485880    | 1767.C10.gz43_224629 |
| M00042755B:D01 | ES 183 | 481594    | 1767.C12.gz43_224661 |
| M00042755B:D09 | ES 183 | 449399    | 1767.C13.gz43_224677 |
| M00042755B:H04 | ES 183 | 485882    | 1767.C16.gz43_224725 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042755B:H11 | ES 183 | 485907    | 1767.C17.gz43_224741 |
| M00042755C:A10 | ES 183 | 452104    | 1767.C19.gz43_224773 |
| M00042756B:B01 | ES 183 | 284586    | 1767.D03.gz43_224518 |
| M00042757A:H07 | ES 183 | 449076    | 1767.D15.gz43_224710 |
| M00042758B:C06 | ES 183 | 448325    | 1767.D23.gz43_224838 |
| M00042758B:G04 | ES 183 | 476876    | 1767.D24.gz43_224854 |
| M00042760A:G12 | ES 183 | 477098    | 1767.E15.gz43_224711 |
| M00042760B:E12 | ES 183 | 453024    | 1767.E18.gz43_224759 |
| M00042760C:F10 | ES 183 | 476438    | 1767.E22.gz43_224823 |
| M00042761B:C11 | ES 183 | 473592    | 1767.F04.gz43_224536 |
| M00042761B:E05 | ES 183 | 475562    | 1767.F08.gz43_224600 |
| M00042761C:G11 | ES 183 | 477521    | 1767.F12.gz43_224664 |
| M00042761D:D12 | ES 183 | 474580    | 1767.F17.gz43_224744 |
| M00042762A:G02 | ES 183 | 455143    | 1767.F22.gz43_224824 |
| M00042763B:A03 | ES 183 | 470801    | 1767.G09.gz43_224617 |
| M00042764A:F12 | ES 183 | 448801    | 1767.G22.gz43_224825 |
| M00042764B:B10 | ES 183 | 453606    | 1767.H01.gz43_224490 |
| M00042764B:G10 | ES 183 | 448865    | 1767.H04.gz43_224538 |
| M00042764C:B10 | ES 183 | 448251    | 1767.H05.gz43_224554 |
| M00042766A:D07 | ES 183 | 128749    | 1767.I04.gz43_224539 |
| M00042766B:G11 | ES 183 | 484633    | 1767.I08.gz43_224603 |
| M00042766D:C05 | ES 183 | 450551    | 1767.I14.gz43_224699 |
| M00042767A:B10 | ES 183 | 479880    | 1767.I18.gz43_224763 |
| M00042767B:E10 | ES 183 | 482868    | 1767.I21.gz43_224811 |
| M00042767B:G04 | ES 183 | 484964    | 1767.I22.gz43_224827 |
| M00042767B:G09 | ES 183 | 484987    | 1767.I23.gz43_224843 |
| M00042767D:D02 | ES 183 | 449437    | 1767.J05.gz43_224556 |
| M00042768A:H09 | ES 183 | 486452    | 1767.J09.gz43_224620 |
| M00042768B:F02 | ES 183 | 456513    | 1767.J11.gz43_224652 |
| M00042768C:E06 | ES 183 | 482486    | 1767.J15.gz43_224716 |
| M00042769B:E12 | ES 183 | 482876    | 1767.K05.gz43_224557 |
| M00042769C:B01 | ES 183 | 479851    | 1767.K08.gz43_224605 |
| M00042769C:B06 | ES 183 | 479868    | 1767.K09.gz43_224621 |
| M00042770A:D02 | ES 183 | 449438    | 1767.K15.gz43_224717 |
| M00042771B:G05 | ES 183 | 485073    | 1767.L12.gz43_224670 |
| M00042771D:F02 | ES 183 | 449592    | 1767.L16.gz43_224734 |
| M00042772C:C12 | ES 183 | 447218    | 1767.L20.gz43_224798 |
| M00042773A:G07 | ES 183 | 485086    | 1767.M02.gz43_224511 |
| M00042773A:H11 | ES 183 | 449689    | 1767.M03.gz43_224527 |
| M00042773B:H08 | ES 183 | 486547    | 1767.M06.gz43_224575 |
| M00042774B:C01 | ES 183 | 481057    | 1767.M14.gz43_224703 |
| M00042774C:B09 | ES 183 | 449261    | 1767.M16.gz43_224735 |
| M00042775B:C09 | ES 183 | 480703    | 1767.N04.gz43_224544 |
| M00042776D:D01 | ES 183 | 448152    | 1767.N17.gz43_224752 |

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042776D:G10 | ES 183 | 477399    | 1767.N18.gz43_224768 |
| M00042777A:B10 | ES 183 | 472119    | 1767.N20.gz43_224800 |
| M00042777B:B05 | ES 183 | 472101    | 1767.O02.gz43_224513 |
| M00042777B:H02 | ES 183 | 449015    | 1767.O03.gz43_224529 |
| M00042778A:C04 | ES 183 | 473433    | 1767.O11.gz43_224657 |
| M00042778A:G07 | ES 183 | 477387    | 1767.O12.gz43_224673 |
| M00042778B:B07 | ES 183 | 448260    | 1767.O15.gz43_224721 |
| M00042778D:F11 | ES 183 | 475797    | 1767.O23.gz43_224849 |
| M00042779A:B04 | ES 183 | 472425    | 1767.O24.gz43_224865 |
| M00042779D:D04 | ES 183 | 453385    | 1767.P15.gz43_224722 |
| M00042779D:E06 | ES 183 | 474823    | 1767.P17.gz43_224754 |
| M00042780A:H05 | ES 183 | 477757    | 1767.P24.gz43_224866 |
| M00042809D:C12 | ES 183 | 649735    | 1777.A23.gz43_252199 |
| M00042809D:G09 | ES 183 | 557375    | 1777.B01.gz43_251848 |
| M00042811A:A01 | ES 183 | 500896    | 1777.B23.gz43_252200 |
| M00042811C:B06 | ES 183 | 537506    | 1777.C03.gz43_251881 |
| M00042812B:C01 | ES 183 | 456793    | 1777.C11.gz43_252009 |
| M00042815C:C02 | ES 183 | 448340    | 1777.E11.gz43_252011 |
| M00042815C:F10 | ES 183 | 448793    | 1777.E13.gz43_252043 |
| M00042816A:C09 | ES 183 | 735534    | 1777.E17.gz43_252107 |
| M00042816A:G04 | ES 183 | 639163    | 1777.E21.gz43_252171 |
| M00042816B:C08 | ES 183 | 545162    | 1777.F03.gz43_251884 |
| M00042817C:B04 | ES 183 | 727517    | 1777.G05.gz43_251917 |
| M00042819C:H02 | ES 183 | 449718    | 1777.H14.gz43_252062 |
| M00042821C:H06 | ES 183 | 485653    | 1777.I17.gz43_252111 |
| M00042824A:C02 | ES 183 | 52034     | 1777.K05.gz43_251921 |
| M00042825A:B05 | ES 183 | 449258    | 1777.K17.gz43_252113 |
| M00042828D:B11 | ES 183 | 472400    | 1777.M09.gz43_251987 |
| M00042831A:F12 | ES 183 | 484207    | 1777.N18.gz43_252132 |
| M00042831D:G06 | ES 183 | 484669    | 1777.O01.gz43_251861 |
| M00042833C:G05 | ES 183 | 485020    | 1777.O18.gz43_252133 |
| M00042835D:C04 | ES 183 | 450883    | 1777.P19.gz43_252150 |
| M00042836A:B12 | ES 183 | 480227    | 1777.P24.gz43_252230 |
| M00042836D:C07 | ES 183 | 449291    | 1778.A11.gz43_225411 |
| M00042838A:E02 | ES 183 | 475111    | 1778.B02.gz43_225268 |
| M00042839B:F05 | ES 183 | 475942    | 1778.B23.gz43_225604 |
| M00042839D:F02 | ES 183 | 476256    | 1778.C07.gz43_225349 |
| M00042840B:F08 | ES 183 | 452202    | 1778.C12.gz43_225429 |
| M00042840C:B12 | ES 183 | 447517    | 1778.C14.gz43_225461 |
| M00042841B:H05 | ES 183 | 450673    | 1778.C18.gz43_225525 |
| M00042841D:G10 | ES 183 | 446657    | 1778.C23.gz43_225605 |
| M00042842A:B04 | ES 183 | 472307    | 1778.C24.gz43_225621 |
| M00042842A:B12 | ES 183 | 448233    | 1778.D01.gz43_225254 |
| M00042842C:H11 | ES 183 | 477555    | 1778.D12.gz43_225430 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042843A:E07 | ES 183 | 474597    | 1778.D18.gz43_225526 |
| M00042843B:F05 | ES 183 | 453856    | 1778.D22.gz43_225590 |
| M00042844A:D02 | ES 183 | 447983    | 1778.E07.gz43_225351 |
| M00042844C:B03 | ES 183 | 448230    | 1778.E12.gz43_225431 |
| M00042844C:C12 | ES 183 | 448383    | 1778.E14.gz43_225463 |
| M00042844D:H02 | ES 183 | 477593    | 1778.E18.gz43_225527 |
| M00042845A:B05 | ES 183 | 448104    | 1778.E19.gz43_225543 |
| M00042845C:A09 | ES 183 | 447983    | 1778.F03.gz43_225288 |
| M00042846C:D09 | ES 183 | 639991    | 1778.F23.gz43_225608 |
| M00042847A:F04 | ES 183 | 727875    | 1778.G10.gz43_225401 |
| M00042848D:G12 | ES 183 | 448029    | 1778.H06.gz43_225338 |
| M00042849B:G06 | ES 183 | 485029    | 1778.H12.gz43_225434 |
| M00042850A:B11 | ES 183 | 404603    | 1778.H20.gz43_225562 |
| M00042850C:C10 | ES 183 | 646583    | 1778.I06.gz43_225339 |
| M00042851A:B08 | ES 183 | 449273    | 1778.I11.gz43_225419 |
| M00042851A:E11 | ES 183 | 483274    | 1778.I12.gz43_225435 |
| M00042851D:B08 | ES 183 | 452990    | 1778.I18.gz43_225531 |
| M00042852B:C06 | ES 183 | 480900    | 1778.J04.gz43_225308 |
| M00042852D:G07 | ES 183 | 485480    | 1778.J10.gz43_225404 |
| M00042853A:G03 | ES 183 | 644190    | 1778.J12.gz43_225436 |
| M00042854A:B11 | ES 183 | 551811    | 1778.K04.gz43_225309 |
| M00042854A:D05 | ES 183 | 725641    | 1778.K07.gz43_225357 |
| M00042854B:F05 | ES 183 | 725266    | 1778.K12.gz43_225437 |
| M00042854D:A05 | ES 183 | 482071    | 1778.K16.gz43_225501 |
| M00042855B:H06 | ES 183 | 485841    | 1778.L05.gz43_225326 |
| M00042855C:G11 | ES 183 | 484789    | 1778.L08.gz43_225374 |
| M00042855D:A12 | ES 183 | 449110    | 1778.L09.gz43_225390 |
| M00042855D:B12 | ES 183 | 480005    | 1778.L12.gz43_225438 |
| M00042855D:D06 | ES 183 | 456737    | 1778.L14.gz43_225470 |
| M00042857C:G04 | ES 183 | 449652    | 1778.M11.gz43_225423 |
| M00042857C:G05 | ES 183 | 484841    | 1778.M12.gz43_225439 |
| M00042858A:A08 | ES 183 | 479084    | 1778.M14.gz43_225471 |
| M00042859B:D06 | ES 183 | 449403    | 1778.N02.gz43_225280 |
| M00042859D:D12 | ES 183 | 481664    | 1778.N11.gz43_225424 |
| M00042860A:C01 | ES 183 | 480641    | 1778.N12.gz43_225440 |
| M00042860A:H04 | ES 183 | 485924    | 1778.N16.gz43_225504 |
| M00042860C:E02 | ES 183 | 483066    | 1778.N23.gz43_225616 |
| M00042860D:F02 | ES 183 | 449604    | 1778.O02.gz43_225281 |
| M00042860D:F05 | ES 183 | 484091    | 1778.O03.gz43_225297 |
| M00042860D:H10 | ES 183 | 449751    | 1778.O06.gz43_225345 |
| M00042861A:F04 | ES 183 | 451368    | 1778.O09.gz43_225393 |
| M00042861C:C03 | ES 183 | 481319    | 1778.O13.gz43_225457 |
| M00042861C:F07 | ES 183 | 484468    | 1778.O15.gz43_225489 |
| M00042861D:D09 | ES 183 | 449407    | 1778.O18.gz43_225537 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042862A:C01 | ES 183 | 480640    | 1778.O23.gz43_225617 |
| M00042862C:E02 | ES 183 | 449521    | 1778.P09.gz43_225394 |
| M00056352D:B04 | ES 183 | 559486    | 1780.A05.gz43_226083 |
| M00056352D:H02 | ES 183 | 594994    | 1780.A10.gz43_226163 |
| M00056353C:E12 | ES 183 | 736210    | 1780.B04.gz43_226068 |
| M00056353D:D10 | ES 183 | 731925    | 1780.B11.gz43_226180 |
| M00056355A:C10 | ES 183 | 463966    | 1780.C10.gz43_226165 |
| M00056355B:D02 | ES 183 | 557029    | 1780.C16.gz43_226261 |
| M00056355C:A05 | ES 183 | 553951    | 1780.C18.gz43_226293 |
| M00056355D:A05 | ES 183 | 727129    | 1780.D07.gz43_226118 |
| M00056355D:B08 | ES 183 | 468467    | 1780.D09.gz43_226150 |
| M00056355D:G04 | ES 183 | 727235    | 1780.D11.gz43_226182 |
| M00056356C:H07 | ES 183 | 732150    | 1780.E02.gz43_226039 |
| M00056357A:C08 | ES 183 | 551167    | 1780.E10.gz43_226167 |
| M00056357C:C06 | ES 183 | 724039    | 1780.E23.gz43_226375 |
| M00056358A:A10 | ES 183 | 723859    | 1780.F10.gz43_226168 |
| M00056358A:G05 | ES 183 | 734150    | 1780.F12.gz43_226200 |
| M00056358D:A06 | ES 183 | 465697    | 1780.F22.gz43_226360 |
| M00056359A:C08 | ES 183 | 623978    | 1780.G05.gz43_226089 |
| M00056359A:F06 | ES 183 | 416326    | 1780.G06.gz43_226105 |
| M00056360A:D11 | ES 183 | 561719    | 1780.H08.gz43_226138 |
| M00056360B:D09 | ES 183 | 528981    | 1780.H12.gz43_226202 |
| M00056360C:A03 | ES 183 | 723869    | 1780.H14.gz43_226234 |
| M00056360C:B01 | ES 183 | 480005    | 1780.H15.gz43_226250 |
| M00056360D:H10 | ES 183 | 732144    | 1780.H23.gz43_226378 |
| M00056361A:C01 | ES 183 | 733806    | 1780.I01.gz43_226027 |
| M00056361A:H06 | ES 183 | 600856    | 1780.I05.gz43_226091 |
| M00056361B:E02 | ES 183 | 471646    | 1780.I10.gz43_226171 |
| M00056361C:C06 | ES 183 | 135364    | 1780.I12.gz43_226203 |
| M00056362C:C02 | ES 183 | 511606    | 1780.J12.gz43_226204 |
| M00056363A:C06 | ES 183 | 724907    | 1780.K02.gz43_226045 |
| M00056363A:E10 | ES 183 | 364334    | 1780.K05.gz43_226093 |
| M00056363C:C12 | ES 183 | 552891    | 1780.K14.gz43_226237 |
| M00056363D:H03 | ES 183 | 728774    | 1780.K22.gz43_226365 |
| M00056364A:B04 | ES 183 | 724792    | 1780.L02.gz43_226046 |
| M00056364C:B01 | ES 183 | 503862    | 1780.L08.gz43_226142 |
| M00056364C:H08 | ES 183 | 588959    | 1780.L15.gz43_226254 |
| M00056364D:C05 | ES 183 | 553244    | 1780.L17.gz43_226286 |
| M00056365B:G10 | ES 183 | 480924    | 1780.M11.gz43_226191 |
| M00056366B:A11 | ES 183 | 449242    | 1780.N05.gz43_226096 |
| M00056367C:D06 | ES 183 | 560859    | 1780.O07.gz43_226129 |
| M00056367C:H05 | ES 183 | 642558    | 1780.O12.gz43_226209 |
| M00056368A:C11 | ES 183 | 456535    | 1780.O20.gz43_226337 |
| M00056368B:H09 | ES 183 | 661194    | 1780.P05.gz43_226098 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056368C:E07 | ES 184 | 482831    | 1780.P07.gz43_226130 |
| M00056368D:D03 | ES 184 | 517298    | 1780.P11.gz43_226194 |
| M00056368D:G05 | ES 184 | 730301    | 1780.P14.gz43_226242 |
| M00056369A:G06 | ES 184 | 728389    | 1780.P22.gz43_226370 |
| M00056369B:E03 | ES 184 | 736001    | 1789.A03.gz43_226435 |
| M00056370B:C10 | ES 184 | 734646    | 1789.B02.gz43_226420 |
| M00056370B:E07 | ES 184 | 568484    | 1789.B04.gz43_226452 |
| M00056370C:F01 | ES 184 | 503625    | 1789.B08.gz43_226516 |
| M00056370D:C06 | ES 184 | 735649    | 1789.B11.gz43_226564 |
| M00056371D:F07 | ES 184 | 734943    | 1789.C12.gz43_226581 |
| M00056372C:C06 | ES 184 | 725389    | 1789.D04.gz43_226454 |
| M00056373D:G01 | ES 184 | 725381    | 1789.E09.gz43_226535 |
| M00056374C:G08 | ES 184 | 487079    | 1789.F03.gz43_226440 |
| M00056375A:D11 | ES 184 | 734348    | 1789.F11.gz43_226568 |
| M00056375D:D12 | ES 184 | 724257    | 1789.G01.gz43_226409 |
| M00056376A:C10 | ES 184 | 649411    | 1789.G09.gz43_226537 |
| M00056377A:C01 | ES 184 | 460284    | 1789.H03.gz43_226442 |
| M00056377C:A01 | ES 184 | 724694    | 1789.H12.gz43_226586 |
| M00056377D:F08 | ES 184 | 725274    | 1789.I03.gz43_226443 |
| M00056378C:E10 | ES 184 | 729993    | 1789.I09.gz43_226539 |
| M00056382A:A12 | ES 184 | 723972    | 1789.J12.gz43_226588 |
| M00056382C:B11 | ES 184 | 503491    | 1789.K03.gz43_226445 |
| M00056382C:F11 | ES 184 | 731542    | 1789.K05.gz43_226477 |
| M00056383B:F08 | ES 184 | 725321    | 1789.L04.gz43_226462 |
| M00056383B:G08 | ES 184 | 725448    | 1789.L06.gz43_226494 |
| M00056383C:E07 | ES 184 | 549790    | 1789.L07.gz43_226510 |
| M00056384C:H04 | ES 184 | 474346    | 1789.M01.gz43_226415 |
| M00056384D:A04 | ES 184 | 186372    | 1789.M02.gz43_226431 |
| M00056385A:A07 | ES 184 | 727523    | 1789.M10.gz43_226559 |
| M00056386A:F08 | ES 184 | 726636    | 1789.N01.gz43_226416 |
| M00056386A:F09 | ES 184 | 724388    | 1789.N02.gz43_226432 |
| M00056386A:G01 | ES 184 | 553035    | 1789.N03.gz43_226448 |
| M00056386B:A07 | ES 184 | 452806    | 1789.N06.gz43_226496 |
| M00056386B:A11 | ES 184 | 730660    | 1789.N07.gz43_226512 |
| M00056386B:D07 | ES 184 | 459918    | 1789.N10.gz43_226560 |
| M00056386B:E09 | ES 184 | 623408    | 1789.N12.gz43_226592 |
| M00056387C:D01 | ES 184 | 558412    | 1789.O11.gz43_226577 |
| M00056388B:A05 | ES 184 | 475682    | 1789.P01.gz43_226418 |
| M00056388B:B03 | ES 184 | 724009    | 1789.P03.gz43_226450 |
| M00056389B:H03 | ES 184 | 729637    | 1790.A10.gz43_226931 |
| M00056389D:F01 | ES 184 | 495712    | 1790.A17.gz43_227043 |
| M00056390B:E10 | ES 184 | 725165    | 1790.B08.gz43_226900 |
| M00056390C:B08 | ES 184 | 556769    | 1790.B11.gz43_226948 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056390C:C04 | ES 184 | 724914    | 1790.B12.gz43_226964 |
| M00056391C:H12 | ES 184 | 727150    | 1790.C14.gz43_226997 |
| M00056391D:E06 | ES 184 | 457508    | 1790.C18.gz43_227061 |
| M00056392A:D11 | ES 184 | 477296    | 1790.C19.gz43_227077 |
| M00056392A:F06 | ES 184 | 448817    | 1790.C20.gz43_227093 |
| M00056392D:C05 | ES 184 | 426297    | 1790.D07.gz43_226886 |
| M00056392D:H02 | ES 184 | 729111    | 1790.D08.gz43_226902 |
| M00056393A:F01 | ES 184 | 549480    | 1790.D11.gz43_226950 |
| M00056393A:G06 | ES 184 | 614463    | 1790.D12.gz43_226966 |
| M00056393D:A09 | ES 184 | 558794    | 1790.D21.gz43_227110 |
| M00056393D:C12 | ES 184 | 118514    | 1790.D24.gz43_227158 |
| M00056394B:C11 | ES 184 | 503173    | 1790.E14.gz43_226999 |
| M00056394B:G05 | ES 184 | 725454    | 1790.E19.gz43_227079 |
| M00056394C:D07 | ES 184 | 640158    | 1790.F01.gz43_226792 |
| M00056395C:H03 | ES 184 | 523364    | 1790.F23.gz43_227144 |
| M00056395D:B01 | ES 184 | 732821    | 1790.F24.gz43_227160 |
| M00056396A:D03 | ES 184 | 733563    | 1790.G08.gz43_226905 |
| M00056396A:G10 | ES 184 | 474981    | 1790.G12.gz43_226969 |
| M00056396B:E10 | ES 184 | 642985    | 1790.G16.gz43_227033 |
| M00056396D:H01 | ES 184 | 484934    | 1790.H05.gz43_226858 |
| M00056397C:A09 | ES 184 | 515038    | 1790.H17.gz43_227050 |
| M00056398A:B10 | ES 184 | 724851    | 1790.I11.gz43_226955 |
| M00056398C:B09 | ES 184 | 735396    | 1790.I24.gz43_227163 |
| M00056398C:D10 | ES 184 | 725095    | 1790.J02.gz43_226812 |
| M00056399B:G09 | ES 184 | 448758    | 1790.J15.gz43_227020 |
| M00056399D:C11 | ES 184 | 656268    | 1790.K04.gz43_226845 |
| M00056400A:D08 | ES 184 | 726494    | 1790.K10.gz43_226941 |
| M00056400A:G10 | ES 184 | 725451    | 1790.K16.gz43_227037 |
| M00056400C:B11 | ES 184 | 447222    | 1790.K24.gz43_227165 |
| M00056400C:G04 | ES 184 | 479851    | 1790.L03.gz43_226830 |
| M00056401A:F09 | ES 184 | 729950    | 1790.L12.gz43_226974 |
| M00056401B:B01 | ES 184 | 735234    | 1790.L15.gz43_227022 |
| M00056402B:D07 | ES 184 | 641576    | 1790.M06.gz43_226879 |
| M00056402C:B09 | ES 184 | 649591    | 1790.M07.gz43_226895 |
| M00056402C:E10 | ES 184 | 483008    | 1790.M09.gz43_226927 |
| M00056402D:A01 | ES 184 | 724714    | 1790.M10.gz43_226943 |
| M00056402D:B07 | ES 184 | 197839    | 1790.M11.gz43_226959 |
| M00056403A:E09 | ES 184 | 417549    | 1790.M18.gz43_227071 |
| M00056403B:D09 | ES 184 | 468467    | 1790.M23.gz43_227151 |
| M00056403B:G12 | ES 184 | 729779    | 1790.M24.gz43_227167 |
| M00056403C:F02 | ES 184 | 481077    | 1790.N03.gz43_226832 |
| M00056403C:F03 | ES 184 | 724411    | 1790.N04.gz43_226848 |
| M00056403C:F12 | ES 184 | 640261    | 1790.N05.gz43_226864 |
| M00056404A:G03 | ES 184 | 640756    | 1790.N12.gz43_226976 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056404B:B06 | ES 184 | 188309    | 1790.N14.gz43_227008 |
| M00056404C:C12 | ES 184 | 733643    | 1790.N22.gz43_227136 |
| M00056404D:G03 | ES 184 | 562769    | 1790.O02.gz43_226817 |
| M00056405C:C12 | ES 184 | 724078    | 1790.O11.gz43_226961 |
| M00056405C:H04 | ES 184 | 449228    | 1790.O13.gz43_226993 |
| M00056405D:E05 | ES 184 | 730948    | 1790.O17.gz43_227057 |
| M00056406A:C02 | ES 184 | 726411    | 1790.O20.gz43_227105 |
| M00056406A:E01 | ES 184 | 728454    | 1790.O23.gz43_227153 |
| M00056406B:C05 | ES 184 | 456577    | 1790.P03.gz43_226834 |
| M00056406C:D09 | ES 184 | 543323    | 1790.P10.gz43_226946 |
| M00056406C:F12 | ES 184 | 423420    | 1790.P13.gz43_226994 |
| M00056407A:D10 | ES 184 | 483147    | 1790.P15.gz43_227026 |
| M00056407A:G03 | ES 184 | 729809    | 1790.P16.gz43_227042 |
| M00056409A:C03 | ES 184 | 641687    | 1790.P21.gz43_227122 |
| M00056409A:D03 | ES 184 | 470462    | 1790.P23.gz43_227154 |
| M00056409A:D06 | ES 184 | 727633    | 1790.P24.gz43_227170 |
| M00056409B:C12 | ES 184 | 729784    | 1791.A03.gz43_227203 |
| M00056409B:E07 | ES 184 | 734253    | 1791.A05.gz43_227235 |
| M00056409C:B04 | ES 184 | 711493    | 1791.A06.gz43_227251 |
| M00056410A:A04 | ES 184 | 640744    | 1791.A19.gz43_227459 |
| M00056410B:A09 | ES 184 | 641383    | 1791.A23.gz43_227523 |
| M00056410D:H03 | ES 184 | 49703     | 1791.B14.gz43_227380 |
| M00056411A:H06 | ES 184 | 558049    | 1791.B17.gz43_227428 |
| M00056411B:D01 | ES 184 | 703978    | 1791.B19.gz43_227460 |
| M00056412B:B08 | ES 184 | 724773    | 1791.C22.gz43_227509 |
| M00056413B:D07 | ES 184 | 642637    | 1791.D18.gz43_227446 |
| M00056413C:B06 | ES 184 | 723951    | 1791.D24.gz43_227542 |
| M00056414C:H08 | ES 184 | 729899    | 1791.E18.gz43_227447 |
| M00056415A:D03 | ES 184 | 475797    | 1791.F01.gz43_227176 |
| M00056415B:B10 | ES 184 | 402471    | 1791.F03.gz43_227208 |
| M00056416B:B11 | ES 184 | 648170    | 1791.G01.gz43_227177 |
| M00056416B:C09 | ES 184 | 456544    | 1791.G02.gz43_227193 |
| M00056416B:H01 | ES 184 | 727090    | 1791.G04.gz43_227225 |
| M00056416D:C08 | ES 184 | 729199    | 1791.G12.gz43_227353 |
| M00056416D:D12 | ES 184 | 435349    | 1791.G13.gz43_227369 |
| M00056416D:H10 | ES 184 | 728986    | 1791.G18.gz43_227449 |
| M00056417A:E08 | ES 184 | 733484    | 1791.G23.gz43_227529 |
| M00056417B:D05 | ES 184 | 642170    | 1791.H05.gz43_227242 |
| M00056417C:G10 | ES 184 | 725408    | 1791.H14.gz43_227386 |
| M00056417D:G09 | ES 184 | 725407    | 1791.H20.gz43_227482 |
| M00056418A:G01 | ES 184 | 729579    | 1791.H24.gz43_227546 |
| M00056418A:G09 | ES 184 | 472684    | 1791.I01.gz43_227179 |
| M00056419A:F08 | ES 184 | 542957    | 1791.J07.gz43_227276 |
| M00056419D:D02 | ES 184 | 728440    | 1791.J24.gz43_227548 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056419D:G04 | ES 184 | 453762    | 1791.K03.gz43_227213 |
| M00056420A:C01 | ES 184 | 560957    | 1791.K04.gz43_227229 |
| M00056420A:C12 | ES 184 | 128749    | 1791.K05.gz43_227245 |
| M00056420A:E09 | ES 184 | 643646    | 1791.K07.gz43_227277 |
| M00056420A:G11 | ES 184 | 731390    | 1791.K10.gz43_227325 |
| M00056420B:G05 | ES 184 | 480377    | 1791.K12.gz43_227357 |
| M00056420C:E08 | ES 184 | 736507    | 1791.K21.gz43_227501 |
| M00056420D:A09 | ES 184 | 562581    | 1791.K23.gz43_227533 |
| M00056421A:F12 | ES 184 | 646146    | 1791.L05.gz43_227246 |
| M00056421C:E06 | ES 184 | 562137    | 1791.L11.gz43_227342 |
| M00056421C:E12 | ES 184 | 730178    | 1791.L12.gz43_227358 |
| M00056421C:H01 | ES 184 | 500253    | 1791.L14.gz43_227390 |
| M00056422A:C12 | ES 184 | 737019    | 1791.L22.gz43_227518 |
| M00056422A:F07 | ES 184 | 498194    | 1791.L24.gz43_227550 |
| M00056422B:A08 | ES 184 | 511149    | 1791.M03.gz43_227215 |
| M00056422B:C12 | ES 184 | 727845    | 1791.M04.gz43_227231 |
| M00056422C:B10 | ES 184 | 474965    | 1791.M15.gz43_227407 |
| M00056422D:D10 | ES 184 | 732987    | 1791.M22.gz43_227519 |
| M00056423B:A12 | ES 184 | 650437    | 1791.N06.gz43_227264 |
| M00056423C:G05 | ES 184 | 644723    | 1791.N14.gz43_227392 |
| M00056423C:H03 | ES 184 | 651053    | 1791.N15.gz43_227408 |
| M00056423D:B06 | ES 184 | 724024    | 1791.N17.gz43_227440 |
| M00056423D:F10 | ES 184 | 288134    | 1791.N24.gz43_227552 |
| M00056423D:H07 | ES 184 | 477718    | 1791.O02.gz43_227201 |
| M00056424A:F05 | ES 184 | 733490    | 1791.O08.gz43_227297 |
| M00056424A:F12 | ES 184 | 649722    | 1791.O09.gz43_227313 |
| M00056424B:A11 | ES 184 | 736893    | 1791.O13.gz43_227377 |
| M00056424C:B10 | ES 184 | 725408    | 1791.O19.gz43_227473 |
| M00056424C:F02 | ES 184 | 555359    | 1791.O21.gz43_227505 |
| M00056424C:H04 | ES 184 | 437450    | 1791.O24.gz43_227553 |
| M00056424D:C08 | ES 184 | 736632    | 1791.P05.gz43_227250 |
| M00056424D:C12 | ES 184 | 674574    | 1791.P06.gz43_227266 |
| M00056425B:B02 | ES 184 | 723963    | 1791.P13.gz43_227378 |
| M00056425D:D08 | ES 184 | 724220    | 1791.P22.gz43_227522 |
| M00056425D:H01 | ES 184 | 726768    | 1791.P23.gz43_227538 |
| M00056426B:G12 | ES 184 | 731158    | 1792.A09.gz43_227695 |
| M00056426C:G05 | ES 184 | 452981    | 1792.A11.gz43_227727 |
| M00056427C:E06 | ES 184 | 732827    | 1792.A21.gz43_227887 |
| M00056428A:F10 | ES 184 | 592186    | 1792.B09.gz43_227696 |
| M00056428B:B01 | ES 184 | 710362    | 1792.B11.gz43_227728 |
| M00056429D:E02 | ES 184 | 480005    | 1792.C11.gz43_227729 |
| M00056432A:A01 | ES 184 | 556115    | 1792.D06.gz43_227650 |
| M00056432A:C08 | ES 184 | 472073    | 1792.D08.gz43_227682 |
| M00056433B:A09 | ES 184 | 724400    | 1792.E03.gz43_227603 |



[illegible]

|      |        |      |      |      |
|------|--------|------|------|------|
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| 1991 | 1992   | 1993 | 1994 | 1995 |
| 1996 | 1997   | 1998 | 1999 | 2000 |
| 2001 | 2002   | 2003 | 2004 | 2005 |
| 2006 | 2007   | 2008 | 2009 | 2010 |
| 2011 | 2012   | 2013 | 2014 | 2015 |
| 2016 | 2017   | 2018 | 2019 | 2020 |
| 2021 | 2022   | 2023 | 2024 | 2025 |
| 2026 | 2027   | 2028 | 2029 | 2030 |
| 2031 | 2032   | 2033 | 2034 | 2035 |
| 2036 | 2037   | 2038 | 2039 | 2040 |
| 2041 | 2042   | 2043 | 2044 | 2045 |
| 2046 | 2047   | 2048 | 2049 | 2050 |
| 2051 | 2052   | 2053 | 2054 | 2055 |
| 2056 | 2057   | 2058 | 2059 | 2060 |
| 2061 | 2062   | 2063 | 2064 | 2065 |
| 2066 | 2067   | 2068 | 2069 | 2070 |
| 2071 | 2072   | 2073 | 2074 | 2075 |
| 2076 | 2077   | 2078 | 2079 | 2080 |
| 2081 | 2082   | 2083 | 2084 | 2085 |
| 2086 | 2087   | 2088 | 2089 | 2090 |
| 2091 | 2092   | 2093 | 2094 | 2095 |
| 2096 | 2097   | 2098 | 2099 | 2100 |
| 2101 | 2102   | 2103 | 2104 | 2105 |
| 2106 | 2107   | 2108 | 2109 | 2110 |
| 2111 | 2112   | 2113 | 2114 | 2115 |
| 2116 | 2117   | 2118 | 2119 | 2120 |
| 2121 | 2122   | 2123 | 2124 | 2125 |
| 2126 | 2127   | 2128 | 2129 | 2130 |
| 2131 | 2132   | 2133 | 2134 | 2135 |
| 2136 | 2137   | 2138 | 2139 | 2140 |
| 2141 | 2142   | 2143 | 2144 | 2145 |
| 2146 | 2147   | 2148 | 2149 | 2150 |
| 2151 | 2152   | 2153 | 2154 | 2155 |
| 2156 | 2157   | 2158 | 2159 | 2160 |
| 2161 | 2162   | 2163 | 2164 | 2165 |
| 2166 | 2167   | 2168 | 2169 | 2170 |
| 2171 | 2172   | 2173 | 2174 | 2175 |
| 2176 | 2177   | 2178 | 2179 | 2180 |
| 2181 | 2182   | 2183 | 2184 | 2185 |
| 2186 | 2187   | 2188 | 2189 | 2190 |
| 2191 | 2192   | 2193 | 2194 | 2195 |
| 2196 | 2197   | 2198 | 2199 | 2200 |
| 2201 | 2202   | 2203 | 2204 | 2205 |
| 2206 | 2207   | 2208 | 2209 | 2210 |
| 2211 | 2212   | 2213 | 2214 | 2215 |
| 2216 | 2217   | 2218 | 2219 | 2220 |
| 2221 | 2222   | 2223 | 2224 | 2225 |
| 2226 | 2227   | 2228 | 2229 | 2230 |
| 2231 | 2232   | 2233 | 2234 | 2235 |
| 2236 | 2237   | 2238 | 2239 | 2240 |
| 2241 | 2242   | 2243 | 2244 | 2245 |
| 2246 | 2247   | 2248 | 2249 | 2250 |
| 2251 | 2252   | 2253 | 2254 | 2255 |
| 2256 | 2257   | 2258 | 2259 | 2260 |
| 2261 | 2262   | 2263 | 2264 | 2265 |
| 2266 | 2267   | 2268 | 2269 | 2270 |
| 2271 | 2272   | 2273 | 2274 | 2275 |
| 2276 | 2277   | 2278 | 2279 | 2280 |
| 2281 | 2282   | 2283 | 2284 | 2285 |
| 2286 | 2287   | 2288 | 2289 | 2290 |
| 2291 | 2292   | 2293 | 2294 | 2295 |
| 2296 | 2297   | 2298 | 2299 | 2300 |
| 2301 | 2302   | 2303 | 2304 | 2305 |
| 2306 | 2307   | 2308 | 2309 | 2310 |
| 2311 | 2312   | 2313 | 2314 | 2315 |
| 2316 | 2317   | 2318 | 2319 | 2320 |
| 2321 | 2322   | 2323 | 2324 | 2325 |
| 2326 | 2327   | 2328 | 2329 | 2330 |
| 2331 | 2332   | 2333 | 2334 | 2335 |
| 2336 | 2337   | 2338 | 2339 | 2340 |
| 2341 | 2342   | 2343 | 2344 | 2345 |
| 2346 | 2347   | 2348 | 2349 | 2350 |
| 2351 | 2352   | 2353 | 2354 | 2355 |
| 2356 | 2357   | 2358 | 2359 | 2360 |
| 2361 | 2362   | 2363 | 2364 | 2365 |
| 2366 | 2367   | 2368 | 2369 | 2370 |
| 2371 | 2372   | 2373 | 2374 | 2375 |
| 2376 | 2377   | 2378 | 2379 | 2380 |
| 2381 | 2382   | 2383 | 2384 | 2385 |
| 2386 | 2387   | 2388 | 2389 | 2390 |
| 2391 | 2392   | 2393 | 2394 |      |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056492B:D06 | ES 185 | 446928    | 1801.E04.gz43_228003 |
| M00056495A:A07 | ES 185 | 447658    | 1801.G03.gz43_227989 |
| M00056495A:C02 | ES 185 | 460690    | 1801.G05.gz43_228021 |
| M00056496D:B12 | ES 185 | 733151    | 1801.I01.gz43_227959 |
| M00056496D:G03 | ES 185 | 649202    | 1801.I05.gz43_228023 |
| M00056497C:D05 | ES 185 | 734261    | 1801.J01.gz43_227960 |
| M00056497C:E01 | ES 185 | 523753    | 1801.J02.gz43_227976 |
| M00056497D:C11 | ES 185 | 611604    | 1801.J05.gz43_228024 |
| M00056498D:C01 | ES 185 | 514142    | 1801.K01.gz43_227961 |
| M00056499A:A04 | ES 185 | 635951    | 1801.K03.gz43_227993 |
| M00056499A:B10 | ES 185 | 447002    | 1801.K05.gz43_228025 |
| M00056500A:G12 | ES 185 | 635951    | 1801.L05.gz43_228026 |
| M00056501B:B09 | ES 185 | 471232    | 1801.M01.gz43_227963 |
| M00056501B:C07 | ES 185 | 451383    | 1801.M02.gz43_227979 |
| M00056503B:G11 | ES 185 | 640116    | 1801.O06.gz43_228045 |
| M00056504B:B01 | ES 185 | 732598    | 1801.P04.gz43_228014 |
| M00056504B:C03 | ES 185 | 736665    | 1801.P05.gz43_228030 |
| M00056567A:H06 | ES 185 | 727410    | 1813.A13.gz43_229679 |
| M00056568C:D02 | ES 185 | 454560    | 1813.B14.gz43_229696 |
| M00056570A:D09 | ES 185 | 548893    | 1813.C22.gz43_229825 |
| M00056572A:A04 | ES 185 | 736194    | 1813.E06.gz43_229571 |
| M00056572C:E03 | ES 185 | 458186    | 1813.E22.gz43_229827 |
| M00056573C:B09 | ES 185 | 554557    | 1813.F20.gz43_229796 |
| M00056576A:A04 | ES 185 | 734043    | 1813.H05.gz43_229558 |
| M00056576A:E01 | ES 185 | 475757    | 1813.H08.gz43_229606 |
| M00056576C:G01 | ES 185 | 513540    | 1813.H22.gz43_229830 |
| M00056577A:F10 | ES 185 | 508210    | 1813.I06.gz43_229575 |
| M00056577D:F08 | ES 185 | 733664    | 1813.I20.gz43_229799 |
| M00056578A:B05 | ES 185 | 725759    | 1813.I22.gz43_229831 |
| M00056578D:A02 | ES 185 | 729281    | 1813.J10.gz43_229640 |
| M00056581D:A08 | ES 185 | 465446    | 1813.L13.gz43_229690 |
| M00056583C:A05 | ES 185 | 511351    | 1813.M13.gz43_229691 |
| M00056584C:A06 | ES 185 | 733970    | 1813.N10.gz43_229644 |
| M00056585C:C08 | ES 185 | 727260    | 1813.O07.gz43_229597 |
| M00056586B:D10 | ES 185 | 461062    | 1813.O24.gz43_229869 |
| M00056631D:F06 | ES 185 | 730897    | 1816.A24.gz43_231007 |
| M00056632C:E03 | ES 185 | 736325    | 1816.B20.gz43_230944 |
| M00056632C:H08 | ES 185 | 726494    | 1816.B22.gz43_230976 |
| M00056632D:E02 | ES 185 | 727944    | 1816.B24.gz43_231008 |
| M00056633D:E05 | ES 185 | 726104    | 1816.C19.gz43_230929 |
| M00056634A:C06 | ES 185 | 736778    | 1816.C21.gz43_230961 |
| M00056634A:G11 | ES 185 | 726448    | 1816.C23.gz43_230993 |
| M00056636C:H05 | ES 185 | 482868    | 1816.E19.gz43_230931 |
| M00056636D:F03 | ES 185 | 559684    | 1816.E21.gz43_230963 |

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056667B:E04 | ES 185 | 725381    | 1825.N17.gz43_231292 |
| M00056667C:H01 | ES 185 | 476477    | 1825.N21.gz43_231356 |
| M00056667D:E05 | ES 185 | 732351    | 1825.N22.gz43_231372 |
| M00056668D:E03 | ES 185 | 735605    | 1825.O14.gz43_231245 |
| M00056669B:E10 | ES 185 | 554597    | 1825.O24.gz43_231405 |
| M00056670A:G02 | ES 185 | 45934     | 1825.P13.gz43_231230 |
| M00056670B:A12 | ES 185 | 734184    | 1825.P14.gz43_231246 |
| M00056670B:G05 | ES 185 | 478458    | 1825.P17.gz43_231294 |
| M00056672A:E05 | ES 185 | 723914    | 1826.A13.gz43_231599 |
| M00056672D:B08 | ES 185 | 726722    | 1826.A21.gz43_231727 |
| M00056672D:E04 | ES 185 | 546121    | 1826.A23.gz43_231759 |
| M00056674D:E09 | ES 185 | 734622    | 1826.C14.gz43_231617 |
| M00056675A:C02 | ES 185 | 446575    | 1826.C18.gz43_231681 |
| M00056675A:G02 | ES 185 | 513156    | 1826.C23.gz43_231761 |
| M00056676B:G12 | ES 185 | 641777    | 1826.D16.gz43_231650 |
| M00056676C:B04 | ES 185 | 725899    | 1826.D18.gz43_231682 |
| M00056678A:B02 | ES 185 | 482722    | 1826.E13.gz43_231603 |
| M00056678A:H05 | ES 185 | 43352     | 1826.E16.gz43_231651 |
| M00056678B:E11 | ES 185 | 734828    | 1826.E17.gz43_231667 |
| M00056678B:H02 | ES 185 | 736246    | 1826.E20.gz43_231715 |
| M00056678B:H06 | ES 185 | 725266    | 1826.E21.gz43_231731 |
| M00056678C:A12 | ES 185 | 730664    | 1826.E22.gz43_231747 |
| M00056679C:F11 | ES 185 | 736194    | 1826.F22.gz43_231748 |
| M00056681A:E06 | ES 185 | 729387    | 1826.G22.gz43_231749 |
| M00056681B:A11 | ES 185 | 728791    | 1826.G24.gz43_231781 |
| M00056682A:F05 | ES 185 | 447489    | 1826.H17.gz43_231670 |
| M00056683B:H04 | ES 185 | 645925    | 1826.I14.gz43_231623 |
| M00056683C:H10 | ES 185 | 644445    | 1826.I17.gz43_231671 |
| M00056683C:H11 | ES 185 | 728659    | 1826.I18.gz43_231687 |
| M00056684B:B12 | ES 185 | 559610    | 1826.I24.gz43_231783 |
| M00056685A:H11 | ES 185 | 517274    | 1826.J17.gz43_231672 |
| M00056685B:G04 | ES 185 | 473238    | 1826.J20.gz43_231720 |
| M00056685C:G07 | ES 185 | 729205    | 1826.J24.gz43_231784 |
| M00056686D:D07 | ES 185 | 733789    | 1826.K18.gz43_231689 |
| M00056686D:E04 | ES 185 | 730829    | 1826.K20.gz43_231721 |
| M00056689B:F03 | ES 185 | 492094    | 1826.M19.gz43_231707 |
| M00056689C:F05 | ES 185 | 729413    | 1826.M24.gz43_231787 |
| M00056692A:A05 | ES 185 | 492629    | 1826.O21.gz43_231741 |
| M00056693B:D07 | ES 185 | 727965    | 1827.A02.gz43_231807 |
| M00056693B:D11 | ES 185 | 580601    | 1827.A04.gz43_231839 |
| M00056693B:H03 | ES 185 | 573733    | 1827.A09.gz43_231919 |
| M00056693C:D12 | ES 185 | 727968    | 1827.A13.gz43_231983 |
| M00056693C:G06 | ES 185 | 617813    | 1827.A14.gz43_231999 |
| M00056693D:B02 | ES 185 | 425396    | 1827.A15.gz43_232015 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056693D:E12 | ES 185 | 475942    | 1827.A18.gz43_232063 |
| M00056694A:C05 | ES 185 | 553483    | 1827.A22.gz43_232127 |
| M00056694A:G02 | ES 185 | 479997    | 1827.B02.gz43_231808 |
| M00056694A:G03 | ES 185 | 693869    | 1827.B03.gz43_231824 |
| M00056694A:G11 | ES 185 | 493830    | 1827.B04.gz43_231840 |
| M00056694B:H10 | ES 185 | 730375    | 1827.B08.gz43_231904 |
| M00056695A:H09 | ES 185 | 449701    | 1827.B21.gz43_232112 |
| M00056695C:C04 | ES 185 | 561301    | 1827.C01.gz43_231793 |
| M00056695C:H08 | ES 185 | 540618    | 1827.C06.gz43_231873 |
| M00056695D:E05 | ES 185 | 472837    | 1827.C10.gz43_231937 |
| M00056695D:F01 | ES 185 | 735974    | 1827.C11.gz43_231953 |
| M00056696A:G12 | ES 185 | 650542    | 1827.C16.gz43_232033 |
| M00056696B:B03 | ES 185 | 727506    | 1827.C17.gz43_232049 |
| M00056696B:H01 | ES 185 | 551096    | 1827.C24.gz43_232161 |
| M00056697A:D02 | ES 185 | 588059    | 1827.D11.gz43_231954 |
| M00056697A:G03 | ES 185 | 395596    | 1827.D13.gz43_231986 |
| M00056697A:H10 | ES 185 | 725084    | 1827.D16.gz43_232034 |
| M00056697C:D11 | ES 185 | 727845    | 1827.D21.gz43_232114 |
| M00056697C:H10 | ES 185 | 728556    | 1827.E01.gz43_231795 |
| M00056697D:B09 | ES 185 | 724714    | 1827.E04.gz43_231843 |
| M00056697D:C09 | ES 185 | 501030    | 1827.E06.gz43_231875 |
| M00056697D:C12 | ES 185 | 462687    | 1827.E07.gz43_231891 |
| M00056698A:A07 | ES 185 | 530656    | 1827.E10.gz43_231939 |
| M00056698B:E10 | ES 185 | 540618    | 1827.E17.gz43_232051 |
| M00056698D:E11 | ES 185 | 737109    | 1827.F04.gz43_231844 |
| M00056698D:G09 | ES 185 | 477366    | 1827.F06.gz43_231876 |
| M00056699A:C07 | ES 185 | 454844    | 1827.F10.gz43_231940 |
| M00056699A:D08 | ES 185 | 452662    | 1827.F11.gz43_231956 |
| M00056699A:E08 | ES 185 | 672032    | 1827.F12.gz43_231972 |
| M00056699B:A05 | ES 185 | 730266    | 1827.F15.gz43_232020 |
| M00056699B:G04 | ES 185 | 641072    | 1827.F21.gz43_232116 |
| M00056699C:C02 | ES 185 | 727649    | 1827.F24.gz43_232164 |
| M00056699C:F09 | ES 185 | 728196    | 1827.G02.gz43_231813 |
| M00056699C:G11 | ES 185 | 395604    | 1827.G04.gz43_231845 |
|                |        |           |                      |
| M00056699D:C09 | ES 186 | 567122    | 1827.G07.gz43_231893 |
| M00056700A:F12 | ES 186 | 728300    | 1827.G14.gz43_232005 |
| M00056700A:G05 | ES 186 | 446607    | 1827.G16.gz43_232037 |
| M00056700B:D02 | ES 186 | 727151    | 1827.G17.gz43_232053 |
| M00056700D:H07 | ES 186 | 732770    | 1827.H10.gz43_231942 |
| M00056701A:A02 | ES 186 | 496084    | 1827.H12.gz43_231974 |
| M00056701A:G09 | ES 186 | 734264    | 1827.H16.gz43_232038 |
| M00056701B:D02 | ES 186 | 631056    | 1827.H18.gz43_232070 |
| M00056701B:D06 | ES 186 | 724489    | 1827.H19.gz43_232086 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056701C:F08 | ES 186 | 728196    | 1827.H24.gz43_232166 |
| M00056701C:G09 | ES 186 | 640458    | 1827.I01.gz43_231799 |
| M00056701D:C03 | ES 186 | 644354    | 1827.I02.gz43_231815 |
| M00056701D:D04 | ES 186 | 727948    | 1827.I06.gz43_231879 |
| M00056701D:G03 | ES 186 | 553140    | 1827.I07.gz43_231895 |
| M00056701D:G07 | ES 186 | 724059    | 1827.I08.gz43_231911 |
| M00056701D:H12 | ES 186 | 550454    | 1827.I09.gz43_231927 |
| M00056702C:A10 | ES 186 | 735676    | 1827.I17.gz43_232055 |
| M00056702C:H02 | ES 186 | 448698    | 1827.I23.gz43_232151 |
| M00056702D:G03 | ES 186 | 735834    | 1827.J04.gz43_231848 |
| M00056703A:G01 | ES 186 | 651050    | 1827.J09.gz43_231928 |
| M00056703B:A04 | ES 186 | 447624    | 1827.J13.gz43_231992 |
| M00056703B:D07 | ES 186 | 560678    | 1827.J16.gz43_232040 |
| M00056703C:F04 | ES 186 | 650136    | 1827.K01.gz43_231801 |
| M00056703D:F08 | ES 186 | 649927    | 1827.K06.gz43_231881 |
| M00056704A:B05 | ES 186 | 403671    | 1827.K08.gz43_231913 |
| M00056704A:H08 | ES 186 | 728552    | 1827.K13.gz43_231993 |
| M00056704B:C02 | ES 186 | 727760    | 1827.K14.gz43_232009 |
| M00056704C:C10 | ES 186 | 451183    | 1827.K18.gz43_232073 |
| M00056704D:H10 | ES 186 | 288801    | 1827.L01.gz43_231802 |
| M00056705A:B12 | ES 186 | 553805    | 1827.L03.gz43_231834 |
| M00056705A:D02 | ES 186 | 726852    | 1827.L04.gz43_231850 |
| M00056705B:A12 | ES 186 | 728768    | 1827.L09.gz43_231930 |
| M00056705B:D10 | ES 186 | 83388     | 1827.L10.gz43_231946 |
| M00056706A:B03 | ES 186 | 528981    | 1827.L24.gz43_232170 |
| M00056706A:B05 | ES 186 | 648777    | 1827.M01.gz43_231803 |
| M00056706A:E09 | ES 186 | 419465    | 1827.M02.gz43_231819 |
| M00056706B:C02 | ES 186 | 449752    | 1827.M06.gz43_231883 |
| M00056706B:C07 | ES 186 | 736100    | 1827.M07.gz43_231899 |
| M00056706B:D04 | ES 186 | 595181    | 1827.M08.gz43_231915 |
| M00056706C:A07 | ES 186 | 584693    | 1827.M10.gz43_231947 |
| M00056706C:B12 | ES 186 | 728898    | 1827.M11.gz43_231963 |
| M00056706C:D05 | ES 186 | 733064    | 1827.M13.gz43_231995 |
| M00056706C:G01 | ES 186 | 551450    | 1827.M18.gz43_232075 |
| M00056707A:G11 | ES 186 | 626791    | 1827.N03.gz43_231836 |
| M00056707B:E02 | ES 186 | 649106    | 1827.N06.gz43_231884 |
| M00056707B:F06 | ES 186 | 736276    | 1827.N09.gz43_231932 |
| M00056707C:B04 | ES 186 | 427486    | 1827.N12.gz43_231980 |
| M00056707C:E01 | ES 186 | 552430    | 1827.N15.gz43_232028 |
| M00056707C:E03 | ES 186 | 730639    | 1827.N16.gz43_232044 |
| M00056707C:F10 | ES 186 | 728768    | 1827.N17.gz43_232060 |
| M00056708B:B09 | ES 186 | 736579    | 1827.O12.gz43_231981 |
| M00056708B:D03 | ES 186 | 607202    | 1827.O13.gz43_231997 |
| M00056708B:F06 | ES 186 | 733040    | 1827.O18.gz43_232077 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056708C:F06 | ES 186 | 449629    | 1827.P01.gz43_231806 |
| M00056708C:F11 | ES 186 | 558317    | 1827.P02.gz43_231822 |
| M00056708D:B03 | ES 186 | 728892    | 1827.P05.gz43_231870 |
| M00056708D:D10 | ES 186 | 730463    | 1827.P06.gz43_231886 |
| M00056708D:H06 | ES 186 | 473433    | 1827.P13.gz43_231998 |
| M00056709A:A05 | ES 186 | 454087    | 1827.P14.gz43_232014 |
| M00056709A:H11 | ES 186 | 259218    | 1827.P18.gz43_232078 |
| M00056709C:F06 | ES 186 | 729428    | 1828.A01.gz43_232175 |
| M00056709D:D05 | ES 186 | 584179    | 1828.A05.gz43_232239 |
| M00056709D:E12 | ES 186 | 455297    | 1828.A08.gz43_232287 |
| M00056710B:F05 | ES 186 | 728273    | 1828.A23.gz43_232527 |
| M00056710B:G12 | ES 186 | 724006    | 1828.B03.gz43_232208 |
| M00056710D:A02 | ES 186 | 475797    | 1828.B09.gz43_232304 |
| M00056710D:C05 | ES 186 | 707609    | 1828.B10.gz43_232320 |
| M00056710D:H04 | ES 186 | 727491    | 1828.B14.gz43_232384 |
| M00056711A:A09 | ES 186 | 641287    | 1828.B15.gz43_232400 |
| M00056711B:B04 | ES 186 | 485020    | 1828.B18.gz43_232448 |
| M00056711C:F10 | ES 186 | 736551    | 1828.C01.gz43_232177 |
| M00056712B:B11 | ES 186 | 728897    | 1828.C19.gz43_232465 |
| M00056712B:F02 | ES 186 | 734453    | 1828.C23.gz43_232529 |
| M00056713A:B09 | ES 186 | 461990    | 1828.D13.gz43_232370 |
| M00056713A:F05 | ES 186 | 48619     | 1828.D15.gz43_232402 |
| M00056713B:B05 | ES 186 | 727410    | 1828.D17.gz43_232434 |
| M00056713C:A10 | ES 186 | 732006    | 1828.D23.gz43_232530 |
| M00056714A:A10 | ES 186 | 734086    | 1828.E11.gz43_232339 |
| M00056714A:B02 | ES 186 | 735047    | 1828.E13.gz43_232371 |
| M00056714A:B09 | ES 186 | 728929    | 1828.E15.gz43_232403 |
| M00056714A:E12 | ES 186 | 448217    | 1828.E19.gz43_232467 |
| M00056714A:H06 | ES 186 | 728445    | 1828.E22.gz43_232515 |
| M00056714B:B06 | ES 186 | 728966    | 1828.E24.gz43_232547 |
| M00056714B:C12 | ES 186 | 724050    | 1828.F01.gz43_232180 |
| M00056714D:A11 | ES 186 | 729813    | 1828.F11.gz43_232340 |
| M00056714D:E08 | ES 186 | 505858    | 1828.F12.gz43_232356 |
| M00056714D:H07 | ES 186 | 448217    | 1828.F14.gz43_232388 |
| M00056715C:B07 | ES 186 | 558544    | 1828.G05.gz43_232245 |
| M00056716B:F12 | ES 186 | 728182    | 1828.H02.gz43_232198 |
| M00056716C:B06 | ES 186 | 630516    | 1828.H04.gz43_232230 |
| M00056718A:F10 | ES 186 | 728925    | 1828.I09.gz43_232311 |
| M00056718A:H05 | ES 186 | 728528    | 1828.I11.gz43_232343 |
| M00056718B:C02 | ES 186 | 451972    | 1828.I15.gz43_232407 |
| M00056718C:B01 | ES 186 | 646309    | 1828.I19.gz43_232471 |
| M00056718D:D12 | ES 186 | 449585    | 1828.I23.gz43_232535 |
| M00056719B:D02 | ES 186 | 727946    | 1828.J09.gz43_232312 |
| M00056719B:G04 | ES 186 | 732770    | 1828.J11.gz43_232344 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056719C:B10 | ES 186 | 486363    | 1828.J18.gz43_232456 |
| M00056719C:F06 | ES 186 | 728303    | 1828.J19.gz43_232472 |
| M00056720B:D05 | ES 186 | 730233    | 1828.K06.gz43_232265 |
| M00056721A:C07 | ES 186 | 727749    | 1828.K13.gz43_232377 |
| M00056721B:D03 | ES 186 | 728002    | 1828.K19.gz43_232473 |
| M00056721C:E05 | ES 186 | 732351    | 1828.L01.gz43_232186 |
| M00056721C:H01 | ES 186 | 555763    | 1828.L03.gz43_232218 |
| M00056721D:D01 | ES 186 | 734622    | 1828.L07.gz43_232282 |
| M00056721D:F12 | ES 186 | 728178    | 1828.L10.gz43_232330 |
| M00056722A:E10 | ES 186 | 598746    | 1828.L13.gz43_232378 |
| M00056722A:F08 | ES 186 | 485899    | 1828.L14.gz43_232394 |
| M00056722B:E09 | ES 186 | 732242    | 1828.L19.gz43_232474 |
| M00056722C:C09 | ES 186 | 730627    | 1828.M01.gz43_232187 |
| M00056722C:D11 | ES 186 | 727878    | 1828.M02.gz43_232203 |
| M00056723C:C09 | ES 186 | 462687    | 1828.N02.gz43_232204 |
| M00056723C:E01 | ES 186 | 553294    | 1828.N05.gz43_232252 |
| M00056723C:G03 | ES 186 | 734990    | 1828.N08.gz43_232300 |
| M00056724B:E11 | ES 186 | 473640    | 1828.N20.gz43_232492 |
| M00056724B:G03 | ES 186 | 447150    | 1828.N22.gz43_232524 |
| M00056724C:H11 | ES 186 | 726576    | 1828.O05.gz43_232253 |
| M00056725A:E02 | ES 186 | 728061    | 1828.O13.gz43_232381 |
| M00056725C:A03 | ES 186 | 727480    | 1828.O21.gz43_232509 |
| M00056725C:H06 | ES 186 | 728627    | 1828.P03.gz43_232222 |
| M00056726A:C12 | ES 186 | 735362    | 1828.P07.gz43_232286 |
| M00056726A:F08 | ES 186 | 449210    | 1828.P08.gz43_232302 |
| M00056726B:H06 | ES 186 | 447634    | 1828.P10.gz43_232334 |
| M00056726D:B05 | ES 186 | 692627    | 1828.P17.gz43_232446 |
| M00056726D:G08 | ES 186 | 509678    | 1828.P21.gz43_232510 |
| M00056746D:D06 | ES 186 | 729206    | 1838.B03.gz43_232976 |
| M00056746D:E09 | ES 186 | 458940    | 1838.B05.gz43_233008 |
| M00056747D:A03 | ES 186 | 529356    | 1838.C01.gz43_232945 |
| M00056750B:H03 | ES 186 | 735464    | 1838.E03.gz43_232979 |
| M00056753A:G01 | ES 186 | 552613    | 1838.G02.gz43_232965 |
| M00056753B:B09 | ES 186 | 728936    | 1838.G06.gz43_233029 |
| M00056755B:E07 | ES 186 | 728464    | 1838.I05.gz43_233015 |
| M00056756C:D06 | ES 186 | 736035    | 1838.J03.gz43_232984 |
| M00056756C:E10 | ES 186 | 646713    | 1838.J04.gz43_233000 |
| M00056758C:B08 | ES 186 | 730178    | 1838.K05.gz43_233017 |
| M00056759C:C04 | ES 186 | 736210    | 1838.L03.gz43_232986 |
| M00056762B:D06 | ES 186 | 481614    | 1838.N05.gz43_233020 |
| M00056763B:G04 | ES 186 | 697527    | 1838.O06.gz43_233037 |
| M00056764C:A02 | ES 186 | 551693    | 1838.P01.gz43_232958 |
| M00056766D:G09 | ES 186 | 728454    | 1839.A01.gz43_233327 |
| M00056767A:F02 | ES 186 | 730858    | 1839.A07.gz43_233423 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056767A:F12 | ES 186 | 711325    | 1839.A08.gz43_233439 |
| M00056767B:C01 | ES 186 | 727737    | 1839.A11.gz43_233487 |
| M00056767B:G08 | ES 186 | 736686    | 1839.A13.gz43_233519 |
| M00056767C:A09 | ES 186 | 549801    | 1839.A14.gz43_233535 |
| M00056768A:C03 | ES 186 | 730607    | 1839.A17.gz43_233583 |
| M00056768A:C10 | ES 186 | 728487    | 1839.A18.gz43_233599 |
| M00056768B:F07 | ES 186 | 730253    | 1839.A21.gz43_233647 |
| M00056768D:A09 | ES 186 | 736773    | 1839.B03.gz43_233360 |
| M00056769C:C03 | ES 186 | 504513    | 1839.B09.gz43_233456 |
| M00056770C:A07 | ES 186 | 641968    | 1839.B15.gz43_233552 |
| M00056771A:F03 | ES 186 | 732345    | 1839.B23.gz43_233680 |
| M00056771B:F03 | ES 186 | 552432    | 1839.C06.gz43_233409 |
| M00056771C:G06 | ES 186 | 640382    | 1839.C13.gz43_233521 |
| M00056771D:D10 | ES 186 | 726229    | 1839.C18.gz43_233601 |
| M00056772A:C08 | ES 186 | 691229    | 1839.C22.gz43_233665 |
| M00056772A:D03 | ES 186 | 726699    | 1839.C23.gz43_233681 |
| M00056773A:A04 | ES 186 | 735071    | 1839.D18.gz43_233602 |
| M00056773A:C04 | ES 186 | 735872    | 1839.D21.gz43_233650 |
| M00056773A:G10 | ES 186 | 727366    | 1839.D22.gz43_233666 |
| M00056773B:G12 | ES 186 | 711797    | 1839.E03.gz43_233363 |
| M00056773C:C09 | ES 186 | 510596    | 1839.E05.gz43_233395 |
| M00056773C:F12 | ES 186 | 135593    | 1839.E08.gz43_233443 |
| M00056774B:G06 | ES 186 | 726825    | 1839.E19.gz43_233619 |
| M00056774C:G03 | ES 186 | 728350    | 1839.E22.gz43_233667 |
| M00056774D:B02 | ES 186 | 631038    | 1839.E24.gz43_233699 |
| M00056774D:F06 | ES 186 | 734724    | 1839.F04.gz43_233380 |
| M00056775A:A05 | ES 186 | 727436    | 1839.F05.gz43_233396 |
| M00056775B:H07 | ES 186 | 477053    | 1839.F12.gz43_233508 |
| M00056776A:G04 | ES 186 | 728464    | 1839.G06.gz43_233413 |
| M00056776D:B02 | ES 186 | 523868    | 1839.G18.gz43_233605 |
| M00056776D:H03 | ES 186 | 642079    | 1839.G22.gz43_233669 |
| M00056777A:A03 | ES 186 | 730029    | 1839.G23.gz43_233685 |
| M00056777D:D04 | ES 186 | 730484    | 1839.H14.gz43_233542 |
| M00056778C:G08 | ES 186 | 609459    | 1839.H24.gz43_233702 |
| M00056780B:E06 | ES 186 | 724183    | 1839.J04.gz43_233384 |
| M00056780B:H04 | ES 186 | 493193    | 1839.J09.gz43_233464 |
| M00056780C:H12 | ES 186 | 647991    | 1839.J14.gz43_233544 |
| M00056780D:G05 | ES 186 | 727216    | 1839.J19.gz43_233624 |
| M00056780D:H10 | ES 186 | 724722    | 1839.J22.gz43_233672 |
| M00056781A:C05 | ES 186 | 513156    | 1839.J23.gz43_233688 |
| M00056781A:D02 | ES 186 | 482788    | 1839.J24.gz43_233704 |
| M00056781A:E06 | ES 186 | 730505    | 1839.K02.gz43_233353 |
| M00056781B:C03 | ES 186 | 733744    | 1839.K07.gz43_233433 |
| M00056781B:C05 | ES 186 | 639178    | 1839.K08.gz43_233449 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056781B:E01 | ES 186 | 728133    | 1839.K09.gz43_233465 |
| M00056781B:F05 | ES 186 | 727005    | 1839.K10.gz43_233481 |
| M00056782B:G05 | ES 186 | 449010    | 1839.L06.gz43_233418 |
| M00056782B:H11 | ES 186 | 643522    | 1839.L07.gz43_233434 |
| M00056782D:F02 | ES 186 | 483549    | 1839.L13.gz43_233530 |
| M00056782D:F08 | ES 186 | 490393    | 1839.L14.gz43_233546 |
| M00056782D:F10 | ES 186 | 726261    | 1839.L15.gz43_233562 |
|                |        |           |                      |
| M00056783A:C08 | ES 187 | 577305    | 1839.L18.gz43_233610 |
| M00056783B:B01 | ES 187 | 47461     | 1839.L19.gz43_233626 |
| M00056783C:D01 | ES 187 | 591449    | 1839.M01.gz43_233339 |
| M00056783C:E03 | ES 187 | 730352    | 1839.M04.gz43_233387 |
| M00056783D:A02 | ES 187 | 460023    | 1839.M06.gz43_233419 |
| M00056783D:B07 | ES 187 | 556458    | 1839.M07.gz43_233435 |
| M00056784B:A01 | ES 187 | 733891    | 1839.M15.gz43_233563 |
| M00056784B:C02 | ES 187 | 730296    | 1839.M16.gz43_233579 |
| M00056784B:D06 | ES 187 | 733149    | 1839.M17.gz43_233595 |
| M00056784C:C06 | ES 187 | 725784    | 1839.M22.gz43_233675 |
| M00056784D:C06 | ES 187 | 675768    | 1839.N01.gz43_233340 |
| M00056784D:G10 | ES 187 | 726344    | 1839.N03.gz43_233372 |
| M00056785A:C12 | ES 187 | 646688    | 1839.N05.gz43_233404 |
| M00056785A:G06 | ES 187 | 228118    | 1839.N07.gz43_233436 |
| M00056785B:B07 | ES 187 | 730845    | 1839.N12.gz43_233516 |
| M00056785C:B09 | ES 187 | 643968    | 1839.N14.gz43_233548 |
| M00056785D:C09 | ES 187 | 550780    | 1839.N19.gz43_233628 |
| M00056785D:G07 | ES 187 | 730592    | 1839.N24.gz43_233708 |
| M00056786D:A03 | ES 187 | 730022    | 1839.O15.gz43_233565 |
| M00056787B:C07 | ES 187 | 577305    | 1839.P01.gz43_233342 |
| M00056787C:B04 | ES 187 | 724383    | 1839.P08.gz43_233454 |
| M00056787C:G01 | ES 187 | 726384    | 1839.P12.gz43_233518 |
| M00056788A:D06 | ES 187 | 606076    | 1839.P21.gz43_233662 |
| M00056871C:D05 | ES 187 | 735801    | 1852.A13.gz43_235742 |
| M00056873A:H06 | ES 187 | 735412    | 1852.B17.gz43_235807 |
| M00056873B:C09 | ES 187 | 726408    | 1852.B19.gz43_235839 |
| M00056874C:D05 | ES 187 | 730059    | 1852.C19.gz43_235840 |
| M00056875D:C04 | ES 187 | 729981    | 1852.D16.gz43_235793 |
| M00056875D:E09 | ES 187 | 727602    | 1852.D18.gz43_235825 |
| M00056875D:H12 | ES 187 | 733040    | 1852.D21.gz43_235873 |
| M00056876A:C08 | ES 187 | 724187    | 1852.D23.gz43_235905 |
| M00056876A:E02 | ES 187 | 730152    | 1852.D24.gz43_235921 |
| M00056876C:B02 | ES 187 | 481641    | 1852.E14.gz43_235762 |
| M00056876C:G10 | ES 187 | 732837    | 1852.E16.gz43_235794 |
| M00056877B:H09 | ES 187 | 488349    | 1852.F14.gz43_235763 |
| M00056877C:D11 | ES 187 | 727975    | 1852.F15.gz43_235779 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056877C:G12 | ES 187 | 655327    | 1852.F19.gz43_235843 |
| M00056877C:H03 | ES 187 | 730441    | 1852.F20.gz43_235859 |
| M00056879A:D12 | ES 187 | 732752    | 1852.G13.gz43_235748 |
| M00056879B:H11 | ES 187 | 730336    | 1852.G24.gz43_235924 |
| M00056879D:D01 | ES 187 | 472704    | 1852.H13.gz43_235749 |
| M00056881A:A10 | ES 187 | 649299    | 1852.I13.gz43_235750 |
| M00056881A:C02 | ES 187 | 735096    | 1852.I14.gz43_235766 |
| M00056881A:H02 | ES 187 | 639950    | 1852.I16.gz43_235798 |
| M00056881B:G04 | ES 187 | 730301    | 1852.I22.gz43_235894 |
| M00056882B:E12 | ES 187 | 594434    | 1852.J14.gz43_235767 |
| M00056882D:A06 | ES 187 | 471931    | 1852.J22.gz43_235895 |
| M00056883D:A07 | ES 187 | 732712    | 1852.K15.gz43_235784 |
| M00056883D:F07 | ES 187 | 732872    | 1852.K21.gz43_235880 |
| M00056884C:H08 | ES 187 | 550673    | 1852.L14.gz43_235769 |
| M00056884C:H11 | ES 187 | 472307    | 1852.L15.gz43_235785 |
| M00056884D:C07 | ES 187 | 724517    | 1852.L16.gz43_235801 |
| M00056884D:D06 | ES 187 | 561396    | 1852.L18.gz43_235833 |
| M00056885A:D12 | ES 187 | 730106    | 1852.L23.gz43_235913 |
| M00056885D:D01 | ES 187 | 644843    | 1852.M17.gz43_235818 |
| M00056886A:A09 | ES 187 | 732872    | 1852.M19.gz43_235850 |
| M00056886A:C11 | ES 187 | 735326    | 1852.M21.gz43_235882 |
| M00056886B:B10 | ES 187 | 650944    | 1852.N13.gz43_235755 |
| M00056886B:C05 | ES 187 | 735672    | 1852.N14.gz43_235771 |
| M00056886B:H02 | ES 187 | 724223    | 1852.N17.gz43_235819 |
| M00056886C:D02 | ES 187 | 473512    | 1852.N19.gz43_235851 |
| M00056886C:D11 | ES 187 | 451184    | 1852.N20.gz43_235867 |
| M00056887A:E01 | ES 187 | 729087    | 1852.N23.gz43_235915 |
| M00056887D:H01 | ES 187 | 730195    | 1852.O17.gz43_235820 |
| M00056888A:H04 | ES 187 | 649030    | 1852.O24.gz43_235932 |
| M00056890A:D05 | ES 187 | 450963    | 1861.A06.gz43_236014 |
| M00056891A:G11 | ES 187 | 732315    | 1861.A24.gz43_236302 |
| M00056891C:H08 | ES 187 | 730393    | 1861.B08.gz43_236047 |
| M00056892B:C09 | ES 187 | 479572    | 1861.B18.gz43_236207 |
| M00056893B:G12 | ES 187 | 724773    | 1861.C16.gz43_236176 |
| M00056893C:A02 | ES 187 | 728640    | 1861.C17.gz43_236192 |
| M00056895B:F12 | ES 187 | 727596    | 1861.E03.gz43_235970 |
| M00056895C:E11 | ES 187 | 494393    | 1861.E07.gz43_236034 |
| M00056895D:G01 | ES 187 | 725258    | 1861.E14.gz43_236146 |
| M00056896A:C01 | ES 187 | 735834    | 1861.E18.gz43_236210 |
| M00056898C:B06 | ES 187 | 676221    | 1861.G10.gz43_236084 |
| M00056898D:D11 | ES 187 | 730760    | 1861.G17.gz43_236196 |
| M00056898D:H09 | ES 187 | 729060    | 1861.G20.gz43_236244 |
| M00056899A:A11 | ES 187 | 732676    | 1861.G22.gz43_236276 |
| M00056899B:D02 | ES 187 | 732244    | 1861.H04.gz43_235989 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056899D:B06 | ES 187 | 448368    | 1861.H12.gz43_236117 |
| M00056900B:D01 | ES 187 | 656667    | 1861.H21.gz43_236261 |
| M00056900B:F07 | ES 187 | 730296    | 1861.H24.gz43_236309 |
| M00056900C:B12 | ES 187 | 562345    | 1861.I04.gz43_235990 |
| M00056901B:C03 | ES 187 | 730608    | 1861.I16.gz43_236182 |
| M00056902A:G12 | ES 187 | 557525    | 1861.J14.gz43_236151 |
| M00056902D:H09 | ES 187 | 489001    | 1861.K12.gz43_236120 |
| M00056903A:C08 | ES 187 | 642897    | 1861.K16.gz43_236184 |
| M00056903A:F03 | ES 187 | 733425    | 1861.K18.gz43_236216 |
| M00056903B:D09 | ES 187 | 453001    | 1861.K24.gz43_236312 |
| M00056905A:H04 | ES 187 | 732486    | 1861.M12.gz43_236122 |
| M00056906D:D11 | ES 187 | 639223    | 1861.N10.gz43_236091 |
| M00056908B:D02 | ES 187 | 548275    | 1861.N16.gz43_236187 |
| M00056908D:A11 | ES 187 | 725451    | 1861.N24.gz43_236315 |
| M00056909B:E11 | ES 187 | 648774    | 1861.O11.gz43_236108 |
| M00056910A:G05 | ES 187 | 551602    | 1861.P02.gz43_235965 |
| M00056910B:F01 | ES 187 | 472226    | 1861.P04.gz43_235997 |
| M00056911B:A01 | ES 187 | 732653    | 1861.P19.gz43_236237 |
| M00056934A:A12 | ES 187 | 729809    | 1863.A01.gz43_236702 |
| M00056934A:E07 | ES 187 | 446820    | 1863.A03.gz43_236734 |
| M00056934C:C04 | ES 187 | 492893    | 1863.A08.gz43_236814 |
| M00056934C:G09 | ES 187 | 555478    | 1863.A10.gz43_236846 |
| M00056935A:C02 | ES 187 | 731355    | 1863.A18.gz43_236974 |
| M00056935A:F04 | ES 187 | 735484    | 1863.A21.gz43_237022 |
| M00056935C:G08 | ES 187 | 726825    | 1863.B11.gz43_236863 |
| M00056936C:C06 | ES 187 | 524706    | 1863.B24.gz43_237071 |
| M00056936C:E04 | ES 187 | 730851    | 1863.C01.gz43_236704 |
| M00056936C:F11 | ES 187 | 77737     | 1863.C02.gz43_236720 |
| M00056937C:H08 | ES 187 | 485880    | 1863.C24.gz43_237072 |
| M00056938A:H09 | ES 187 | 451624    | 1863.D08.gz43_236817 |
| M00056938B:C06 | ES 187 | 725638    | 1863.D11.gz43_236865 |
| M00056938B:C09 | ES 187 | 733144    | 1863.D12.gz43_236881 |
| M00056938B:H08 | ES 187 | 731216    | 1863.D15.gz43_236929 |
| M00056938C:F10 | ES 187 | 735306    | 1863.D20.gz43_237009 |
| M00056939A:C01 | ES 187 | 734151    | 1863.E03.gz43_236738 |
| M00056939B:E05 | ES 187 | 642528    | 1863.E12.gz43_236882 |
| M00056939B:E10 | ES 187 | 735477    | 1863.E13.gz43_236898 |
| M00056939D:B02 | ES 187 | 171511    | 1863.E21.gz43_237026 |
| M00056940B:B11 | ES 187 | 732886    | 1863.F12.gz43_236883 |
| M00056940B:G07 | ES 187 | 730564    | 1863.F14.gz43_236915 |
| M00056940C:E05 | ES 187 | 730815    | 1863.F17.gz43_236963 |
| M00056941B:B02 | ES 187 | 616541    | 1863.G10.gz43_236852 |
| M00056941B:G08 | ES 187 | 730375    | 1863.G18.gz43_236980 |
| M00056941C:F07 | ES 187 | 732491    | 1863.G21.gz43_237028 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056941D:A05 | ES 187 | 730452    | 1863.G24.gz43_237076 |
| M00056941D:D07 | ES 187 | 727596    | 1863.H01.gz43_236709 |
| M00056941D:G05 | ES 187 | 456183    | 1863.H03.gz43_236741 |
| M00056941D:H01 | ES 187 | 724162    | 1863.H04.gz43_236757 |
| M00056942B:F04 | ES 187 | 485183    | 1863.H09.gz43_236837 |
| M00056942C:A12 | ES 187 | 724286    | 1863.H12.gz43_236885 |
| M00056942C:B12 | ES 187 | 731162    | 1863.H14.gz43_236917 |
| M00056942C:C06 | ES 187 | 733151    | 1863.H15.gz43_236933 |
| M00056942C:F11 | ES 187 | 732756    | 1863.H17.gz43_236965 |
| M00056942D:D03 | ES 187 | 727517    | 1863.H20.gz43_237013 |
| M00056942D:D07 | ES 187 | 728076    | 1863.H21.gz43_237029 |
| M00056942D:D11 | ES 187 | 511351    | 1863.H22.gz43_237045 |
| M00056943A:B04 | ES 187 | 734629    | 1863.I03.gz43_236742 |
| M00056943A:F01 | ES 187 | 729691    | 1863.I05.gz43_236774 |
| M00056943C:A01 | ES 187 | 468015    | 1863.I17.gz43_236966 |
| M00056943D:B02 | ES 187 | 729316    | 1863.I20.gz43_237014 |
| M00056943D:H08 | ES 187 | 731125    | 1863.I22.gz43_237046 |
| M00056944A:D09 | ES 187 | 733623    | 1863.J03.gz43_236743 |
| M00056944B:C02 | ES 187 | 448233    | 1863.J04.gz43_236759 |
| M00056944C:B03 | ES 187 | 735994    | 1863.J12.gz43_236887 |
| M00056944D:A06 | ES 187 | 733081    | 1863.J17.gz43_236967 |
| M00056945A:B11 | ES 187 | 651088    | 1863.K04.gz43_236760 |
| M00056945A:F02 | ES 187 | 646314    | 1863.K06.gz43_236792 |
| M00056945C:A11 | ES 187 | 724401    | 1863.K12.gz43_236888 |
| M00056946A:F07 | ES 187 | 736293    | 1863.L01.gz43_236713 |
| M00056946A:G06 | ES 187 | 638983    | 1863.L02.gz43_236729 |
| M00056946C:B08 | ES 187 | 552416    | 1863.L08.gz43_236825 |
| M00056946D:G09 | ES 187 | 555484    | 1863.L17.gz43_236969 |
| M00056947A:C05 | ES 187 | 551441    | 1863.L20.gz43_237017 |
| M00056947C:B04 | ES 187 | 736001    | 1863.M02.gz43_236730 |
| M00056947D:F09 | ES 187 | 736349    | 1863.M08.gz43_236826 |
| M00056948A:D09 | ES 187 | 736129    | 1863.M12.gz43_236890 |
| M00056948B:B03 | ES 187 | 449061    | 1863.M15.gz43_236938 |
| M00056948B:D04 | ES 187 | 600347    | 1863.M17.gz43_236970 |
| M00056948B:G05 | ES 187 | 467803    | 1863.M18.gz43_236986 |
| M00056948B:H06 | ES 187 | 490903    | 1863.M19.gz43_237002 |
| M00056948C:F03 | ES 187 | 733910    | 1863.N01.gz43_236715 |
| M00056948D:A11 | ES 187 | 733856    | 1863.N03.gz43_236747 |
| M00056949A:A04 | ES 187 | 500239    | 1863.N05.gz43_236779 |
| M00056949D:D11 | ES 187 | 461486    | 1863.O02.gz43_236732 |
| M00056950A:F01 | ES 187 | 685968    | 1863.O08.gz43_236828 |
| M00056950A:H03 | ES 187 | 410487    | 1863.O10.gz43_236860 |
| M00056950B:F03 | ES 187 | 560252    | 1863.O16.gz43_236956 |
| M00056950D:F12 | ES 187 | 731196    | 1863.P02.gz43_236733 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056950D:H09 | ES 187 | 727480    | 1863.P03.gz43_236749 |
| M00056951B:B06 | ES 187 | 488447    | 1863.P11.gz43_236877 |
| M00056951B:F09 | ES 187 | 448046    | 1863.P13.gz43_236909 |
| M00056951C:A04 | ES 187 | 735818    | 1863.P17.gz43_236973 |
| M00056953B:F05 | ES 187 | 516522    | 1864.B04.gz43_237135 |
| M00056954C:C04 | ES 187 | 556141    | 1864.C07.gz43_237184 |
| M00056957B:F10 | ES 187 | 553000    | 1864.E18.gz43_237362 |
| M00056959C:B10 | ES 187 | 642781    | 1864.G12.gz43_237268 |
| M00056961C:C07 | ES 187 | 736197    | 1864.I03.gz43_237126 |
| M00056961D:G02 | ES 187 | 656070    | 1864.I09.gz43_237222 |
| M00056962D:F09 | ES 187 | 736289    | 1864.I17.gz43_237350 |
| M00056968C:C06 | ES 187 | 731089    | 1864.M04.gz43_237146 |
| M00056969A:B07 | ES 187 | 731947    | 1864.M14.gz43_237306 |
| M00056969A:C07 | ES 187 | 448712    | 1864.M16.gz43_237338 |
| M00056975A:H11 | ES 187 | 728249    | 1873.A13.gz43_237662 |
| M00056975B:E04 | ES 187 | 735440    | 1873.A16.gz43_237710 |
| M00056975C:F09 | ES 187 | 477399    | 1873.A18.gz43_237742 |
| M00056976C:F05 | ES 187 | 734561    | 1873.B20.gz43_237775 |
| M00056977A:C02 | ES 187 | 733563    | 1873.C04.gz43_237520 |
| M00056977A:H10 | ES 187 | 482461    | 1873.C12.gz43_237648 |
| M00056977B:B06 | ES 187 | 613029    | 1873.C13.gz43_237664 |
| M00056978A:A03 | ES 187 | 734936    | 1873.D08.gz43_237585 |
| M00056978A:H04 | ES 187 | 730089    | 1873.D11.gz43_237633 |
| M00056978B:G02 | ES 187 | 641658    | 1873.D16.gz43_237713 |
|                |        |           |                      |
| M00056978D:A01 | ES 188 | 733778    | 1873.D24.gz43_237841 |
| M00056978D:B07 | ES 188 | 735123    | 1873.E02.gz43_237490 |
| M00056979B:D03 | ES 188 | 731607    | 1873.E08.gz43_237586 |
| M00056979B:E03 | ES 188 | 725321    | 1873.E09.gz43_237602 |
| M00056979C:D11 | ES 188 | 648034    | 1873.E12.gz43_237650 |
| M00056980A:H06 | ES 188 | 732438    | 1873.F04.gz43_237523 |
| M00056980D:E07 | ES 188 | 727151    | 1873.F20.gz43_237779 |
| M00056981D:H02 | ES 188 | 732535    | 1873.G14.gz43_237684 |
| M00056982D:B12 | ES 188 | 724411    | 1873.H02.gz43_237493 |
| M00056983D:C12 | ES 188 | 650919    | 1873.H18.gz43_237749 |
| M00056985A:D06 | ES 188 | 729623    | 1873.I12.gz43_237654 |
| M00056985A:G07 | ES 188 | 552254    | 1873.I14.gz43_237686 |
| M00056985B:G03 | ES 188 | 557488    | 1873.I18.gz43_237750 |
| M00056985C:C06 | ES 188 | 731453    | 1873.I20.gz43_237782 |
| M00056986A:E09 | ES 188 | 732213    | 1873.J06.gz43_237559 |
| M00056987A:C02 | ES 188 | 731592    | 1873.J24.gz43_237847 |
| M00056987C:D08 | ES 188 | 555423    | 1873.K04.gz43_237528 |
| M00056987D:A09 | ES 188 | 731302    | 1873.K10.gz43_237624 |
| M00056988A:B09 | ES 188 | 723895    | 1873.K17.gz43_237736 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00056988A:F06 | ES 188 | 642649    | 1873.K20.gz43_237784 |
| M00056988B:A06 | ES 188 | 731358    | 1873.K22.gz43_237816 |
| M00056988C:D05 | ES 188 | 703978    | 1873.L04.gz43_237529 |
| M00056988D:F05 | ES 188 | 732113    | 1873.L10.gz43_237625 |
| M00056989C:H09 | ES 188 | 639934    | 1873.M03.gz43_237514 |
| M00056989D:A07 | ES 188 | 731476    | 1873.M05.gz43_237546 |
| M00056989D:F07 | ES 188 | 728013    | 1873.M10.gz43_237626 |
| M00056989D:H11 | ES 188 | 731317    | 1873.M12.gz43_237658 |
| M00056990B:B03 | ES 188 | 729795    | 1873.M18.gz43_237754 |
| M00056990B:H07 | ES 188 | 642288    | 1873.M20.gz43_237786 |
| M00056990C:E09 | ES 188 | 735395    | 1873.N02.gz43_237499 |
| M00056990D:C11 | ES 188 | 725825    | 1873.N06.gz43_237563 |
| M00056991C:H11 | ES 188 | 406931    | 1873.N18.gz43_237755 |
| M00056992A:E01 | ES 188 | 471883    | 1873.N22.gz43_237819 |
| M00056993A:B02 | ES 188 | 550973    | 1873.O12.gz43_237660 |
| M00056993A:B08 | ES 188 | 731542    | 1873.O13.gz43_237676 |
| M00056993D:C05 | ES 188 | 662617    | 1873.P02.gz43_237501 |
| M00056993D:F05 | ES 188 | 732114    | 1873.P05.gz43_237549 |
| M00056994B:H05 | ES 188 | 736401    | 1873.P18.gz43_237757 |
| M00056994C:B04 | ES 188 | 572426    | 1873.P20.gz43_237789 |
| M00056994C:C01 | ES 188 | 483676    | 1873.P22.gz43_237821 |
| M00056995C:H06 | ES 188 | 631251    | 1874.A15.gz43_238078 |
| M00056995D:C11 | ES 188 | 731686    | 1874.A19.gz43_238142 |
| M00056996D:A02 | ES 188 | 731317    | 1874.B08.gz43_237967 |
| M00056997A:H05 | ES 188 | 550016    | 1874.B18.gz43_238127 |
| M00056997B:C11 | ES 188 | 559053    | 1874.B20.gz43_238159 |
| M00056997D:B04 | ES 188 | 737083    | 1874.C06.gz43_237936 |
| M00056998C:B10 | ES 188 | 456236    | 1874.D01.gz43_237857 |
| M00056998D:H08 | ES 188 | 726408    | 1874.D08.gz43_237969 |
| M00056999A:G12 | ES 188 | 734708    | 1874.D12.gz43_238033 |
| M00056999B:D07 | ES 188 | 726696    | 1874.D16.gz43_238097 |
| M00057000A:A05 | ES 188 | 733932    | 1874.E03.gz43_237890 |
| M00057001D:F02 | ES 188 | 448202    | 1874.F16.gz43_238099 |
| M00057003D:F02 | ES 188 | 734629    | 1874.H16.gz43_238101 |
| M00057004B:D05 | ES 188 | 497233    | 1874.H21.gz43_238181 |
| M00057006A:G10 | ES 188 | 730662    | 1874.J17.gz43_238119 |
| M00057007B:G02 | ES 188 | 561993    | 1874.K16.gz43_238104 |
| M00057007C:A06 | ES 188 | 736413    | 1874.K17.gz43_238120 |
| M00057009C:B02 | ES 188 | 732792    | 1874.N01.gz43_237867 |
| M00057011C:H03 | ES 188 | 724810    | 1874.P07.gz43_237965 |
| M00057011D:F12 | ES 188 | 733836    | 1874.P13.gz43_238061 |
| M00057012A:D12 | ES 188 | 556637    | 1874.P17.gz43_238125 |
| M00057012D:G03 | ES 188 | 732441    | 1875.A03.gz43_238270 |
| M00057012D:G04 | ES 188 | 733571    | 1875.A04.gz43_238286 |

[illegible][illegible]



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057021D:F10 | ES 188 | 212768    | 1875.G24.gz43_238612 |
| M00057022B:A04 | ES 188 | 729731    | 1875.H09.gz43_238373 |
| M00057022B:F03 | ES 188 | 639629    | 1875.H11.gz43_238405 |
| M00057022B:H04 | ES 188 | 559699    | 1875.H12.gz43_238421 |
| M00057022C:D12 | ES 188 | 726476    | 1875.H14.gz43_238453 |
| M00057022D:E10 | ES 188 | 554693    | 1875.H23.gz43_238597 |
| M00057023A:H09 | ES 188 | 726173    | 1875.I03.gz43_238278 |
| M00057023D:D05 | ES 188 | 390968    | 1875.I13.gz43_238438 |
| M00057023D:D08 | ES 188 | 466920    | 1875.I14.gz43_238454 |
| M00057023D:E11 | ES 188 | 616985    | 1875.I15.gz43_238470 |
| M00057024A:D08 | ES 188 | 727761    | 1875.I21.gz43_238566 |
| M00057024B:A03 | ES 188 | 735021    | 1875.I23.gz43_238598 |
| M00057024B:A11 | ES 188 | 726044    | 1875.I24.gz43_238614 |
| M00057024B:F07 | ES 188 | 733625    | 1875.J01.gz43_238247 |
| M00057024C:A01 | ES 188 | 670124    | 1875.J04.gz43_238295 |
| M00057024C:G08 | ES 188 | 551485    | 1875.J06.gz43_238327 |
| M00057024D:D12 | ES 188 | 735396    | 1875.J10.gz43_238391 |
| M00057024D:H11 | ES 188 | 728797    | 1875.J15.gz43_238471 |
| M00057025C:A08 | ES 188 | 724296    | 1875.K02.gz43_238264 |
| M00057025C:D11 | ES 188 | 655312    | 1875.K04.gz43_238296 |
| M00057026C:H11 | ES 188 | 733673    | 1875.K21.gz43_238568 |
| M00057026D:A05 | ES 188 | 732598    | 1875.K23.gz43_238600 |
| M00057027B:B11 | ES 188 | 651049    | 1875.L07.gz43_238345 |
| M00057027B:E04 | ES 188 | 89082     | 1875.L08.gz43_238361 |
| M00057027B:F06 | ES 188 | 731577    | 1875.L11.gz43_238409 |
| M00057027D:A12 | ES 188 | 432159    | 1875.L18.gz43_238521 |
| M00057027D:D07 | ES 188 | 733209    | 1875.L21.gz43_238569 |
| M00057027D:G03 | ES 188 | 728791    | 1875.L24.gz43_238617 |
| M00057028B:B11 | ES 188 | 730296    | 1875.M11.gz43_238410 |
| M00057028D:D09 | ES 188 | 554080    | 1875.M19.gz43_238538 |
| M00057029A:C08 | ES 188 | 495241    | 1875.M23.gz43_238602 |
| M00057029B:G10 | ES 188 | 735412    | 1875.N07.gz43_238347 |
| M00057029D:A06 | ES 188 | 732712    | 1875.N14.gz43_238459 |
| M00057029D:F01 | ES 188 | 733479    | 1875.N15.gz43_238475 |
| M00057030B:B03 | ES 188 | 425203    | 1875.N22.gz43_238587 |
| M00057030B:F01 | ES 188 | 735989    | 1875.N23.gz43_238603 |
| M00057030C:A05 | ES 188 | 562769    | 1875.N24.gz43_238619 |
| M00057030C:B03 | ES 188 | 461486    | 1875.O01.gz43_238252 |
| M00057031A:G09 | ES 188 | 594013    | 1875.O12.gz43_238428 |
| M00057031A:H02 | ES 188 | 471522    | 1875.O13.gz43_238444 |
| M00057031B:A01 | ES 188 | 561338    | 1875.O14.gz43_238460 |
| M00057032A:C01 | ES 188 | 512863    | 1875.P08.gz43_238365 |
| M00057032A:F12 | ES 188 | 642693    | 1875.P10.gz43_238397 |
| M00057032D:A04 | ES 188 | 736385    | 1875.P18.gz43_238525 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057033A:D08 | ES 188 | 479208    | 1875.P24.gz43_238621 |
| M00057033C:B03 | ES 188 | 468296    | 1876.A08.gz43_238734 |
| M00057033D:F10 | ES 188 | 456469    | 1876.A16.gz43_238862 |
| M00057034B:B01 | ES 188 | 735972    | 1876.A23.gz43_238974 |
| M00057034C:A11 | ES 188 | 735221    | 1876.A24.gz43_238990 |
| M00057034C:G12 | ES 188 | 736385    | 1876.B05.gz43_238687 |
| M00057035C:E10 | ES 188 | 452833    | 1876.C03.gz43_238656 |
| M00057036A:C07 | ES 188 | 557967    | 1876.C14.gz43_238832 |
| M00057036B:G08 | ES 188 | 483959    | 1876.C18.gz43_238896 |
| M00057036D:B01 | ES 188 | 729813    | 1876.C24.gz43_238992 |
| M00057036D:E09 | ES 188 | 554734    | 1876.D06.gz43_238705 |
| M00057037D:E08 | ES 188 | 727411    | 1876.D24.gz43_238993 |
| M00057038A:H07 | ES 188 | 473026    | 1876.E04.gz43_238674 |
| M00057038C:B06 | ES 188 | 728353    | 1876.E07.gz43_238722 |
| M00057038C:G08 | ES 188 | 454819    | 1876.E09.gz43_238754 |
| M00057038D:A12 | ES 188 | 735815    | 1876.E11.gz43_238786 |
| M00057040B:F01 | ES 188 | 483101    | 1876.F12.gz43_238803 |
| M00057040D:H04 | ES 188 | 736855    | 1876.F18.gz43_238899 |
| M00057041D:B11 | ES 188 | 546632    | 1876.G12.gz43_238804 |
| M00057041D:C08 | ES 188 | 492627    | 1876.G13.gz43_238820 |
| M00057042B:A10 | ES 188 | 727321    | 1876.G22.gz43_238964 |
| M00057042D:E06 | ES 188 | 736881    | 1876.H06.gz43_238709 |
| M00057042D:G02 | ES 188 | 733772    | 1876.H08.gz43_238741 |
| M00057043A:G07 | ES 188 | 732315    | 1876.H12.gz43_238805 |
| M00057043C:H11 | ES 188 | 638857    | 1876.H22.gz43_238965 |
| M00057044C:B05 | ES 188 | 735871    | 1876.I16.gz43_238870 |
| M00057045A:C04 | ES 188 | 734466    | 1876.J05.gz43_238695 |
| M00057045D:D08 | ES 188 | 645803    | 1876.J20.gz43_238935 |
| M00057046A:F02 | ES 188 | 732159    | 1876.K03.gz43_238664 |
| M00057046A:G05 | ES 188 | 668731    | 1876.K05.gz43_238696 |
| M00057046C:E05 | ES 188 | 732042    | 1876.K14.gz43_238840 |
| M00057047C:C07 | ES 188 | 725024    | 1876.L11.gz43_238793 |
| M00057047D:E01 | ES 188 | 643933    | 1876.L20.gz43_238937 |
| M00057047D:H04 | ES 188 | 735054    | 1876.L23.gz43_238985 |
| M00057048C:E04 | ES 188 | 481293    | 1876.M10.gz43_238778 |
| M00057048C:H11 | ES 188 | 558573    | 1876.M12.gz43_238810 |
| M00057048D:H10 | ES 188 | 732562    | 1876.M20.gz43_238938 |
| M00057049D:F12 | ES 188 | 732246    | 1876.N07.gz43_238731 |
| M00057050B:F06 | ES 188 | 737087    | 1876.N14.gz43_238843 |
| M00057051B:E09 | ES 188 | 466920    | 1876.O06.gz43_238716 |
| M00057051D:F07 | ES 188 | 732242    | 1876.O23.gz43_238988 |
|                |        |           |                      |
| M00057052D:A07 | ES 189 | 708175    | 1876.P18.gz43_238909 |
| M00057053A:A02 | ES 189 | 645262    | 1885.A03.gz43_239038 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057053A:D11 | ES 189 | 446616    | 1885.A06.gz43_239086 |
| M00057053C:B10 | ES 189 | 732872    | 1885.A12.gz43_239182 |
| M00057053C:G04 | ES 189 | 733623    | 1885.A15.gz43_239230 |
| M00057053D:D01 | ES 189 | 677769    | 1885.A16.gz43_239246 |
| M00057054A:B12 | ES 189 | 729502    | 1885.A18.gz43_239278 |
| M00057054A:D01 | ES 189 | 736113    | 1885.A19.gz43_239294 |
| M00057055B:D07 | ES 189 | 726380    | 1885.B16.gz43_239247 |
| M00057055B:E10 | ES 189 | 730472    | 1885.B17.gz43_239263 |
| M00057055B:F05 | ES 189 | 567005    | 1885.B19.gz43_239295 |
| M00057055C:F01 | ES 189 | 729981    | 1885.C02.gz43_239024 |
| M00057055C:H07 | ES 189 | 728445    | 1885.C06.gz43_239088 |
| M00057055D:D11 | ES 189 | 725991    | 1885.C07.gz43_239104 |
| M00057055D:F05 | ES 189 | 733417    | 1885.C08.gz43_239120 |
| M00057056B:C06 | ES 189 | 134501    | 1885.C16.gz43_239248 |
| M00057056B:D05 | ES 189 | 455884    | 1885.C17.gz43_239264 |
| M00057056B:D11 | ES 189 | 731830    | 1885.C18.gz43_239280 |
| M00057056B:E09 | ES 189 | 735423    | 1885.C19.gz43_239296 |
| M00057056B:F01 | ES 189 | 735423    | 1885.C21.gz43_239328 |
| M00057056C:G03 | ES 189 | 734241    | 1885.D02.gz43_239025 |
| M00057056D:F11 | ES 189 | 732223    | 1885.D06.gz43_239089 |
| M00057057A:G01 | ES 189 | 654723    | 1885.D10.gz43_239153 |
| M00057057B:E06 | ES 189 | 422590    | 1885.D13.gz43_239201 |
| M00057057B:E07 | ES 189 | 471982    | 1885.D14.gz43_239217 |
| M00057057B:G03 | ES 189 | 736318    | 1885.D15.gz43_239233 |
| M00057058D:F09 | ES 189 | 647427    | 1885.E06.gz43_239090 |
| M00057058D:G08 | ES 189 | 451233    | 1885.E07.gz43_239106 |
| M00057059A:B04 | ES 189 | 731449    | 1885.E10.gz43_239154 |
| M00057059B:F03 | ES 189 | 597542    | 1885.E15.gz43_239234 |
| M00057059C:A04 | ES 189 | 614455    | 1885.E16.gz43_239250 |
| M00057059C:E10 | ES 189 | 502168    | 1885.E19.gz43_239298 |
| M00057059C:H02 | ES 189 | 620462    | 1885.E20.gz43_239314 |
| M00057059D:A09 | ES 189 | 476947    | 1885.E21.gz43_239330 |
| M00057059D:H09 | ES 189 | 735292    | 1885.F02.gz43_239027 |
| M00057060A:C10 | ES 189 | 473742    | 1885.F04.gz43_239059 |
| M00057060B:D07 | ES 189 | 552641    | 1885.F09.gz43_239139 |
| M00057060B:E06 | ES 189 | 449473    | 1885.F10.gz43_239155 |
| M00057060C:D05 | ES 189 | 731844    | 1885.F16.gz43_239251 |
| M00057060D:C09 | ES 189 | 450551    | 1885.F20.gz43_239315 |
| M00057061A:F09 | ES 189 | 735216    | 1885.F24.gz43_239379 |
| M00057061A:H10 | ES 189 | 641848    | 1885.G01.gz43_239012 |
| M00057061B:F01 | ES 189 | 449015    | 1885.G02.gz43_239028 |
| M00057061B:F05 | ES 189 | 594013    | 1885.G03.gz43_239044 |
| M00057061B:H02 | ES 189 | 733573    | 1885.G04.gz43_239060 |
| M00057061C:D04 | ES 189 | 595506    | 1885.G06.gz43_239092 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057061D:D03 | ES 189 | 736156    | 1885.G09.gz43_239140 |
| M00057061D:F05 | ES 189 | 452623    | 1885.G10.gz43_239156 |
| M00057062B:H04 | ES 189 | 447075    | 1885.G22.gz43_239348 |
| M00057062D:D04 | ES 189 | 723853    | 1885.H01.gz43_239013 |
| M00057063A:C08 | ES 189 | 728884    | 1885.H07.gz43_239109 |
| M00057063B:F06 | ES 189 | 736285    | 1885.H14.gz43_239221 |
| M00057063C:C04 | ES 189 | 736023    | 1885.H17.gz43_239269 |
| M00057064B:H10 | ES 189 | 481366    | 1885.I04.gz43_239062 |
| M00057064C:F11 | ES 189 | 541793    | 1885.I07.gz43_239110 |
| M00057064D:C09 | ES 189 | 402180    | 1885.I10.gz43_239158 |
| M00057064D:G09 | ES 189 | 729717    | 1885.I12.gz43_239190 |
| M00057065B:D12 | ES 189 | 723919    | 1885.I19.gz43_239302 |
| M00057065C:B07 | ES 189 | 420958    | 1885.I21.gz43_239334 |
| M00057066A:A09 | ES 189 | 422242    | 1885.J13.gz43_239207 |
| M00057066B:A04 | ES 189 | 727130    | 1885.J20.gz43_239319 |
| M00057066C:B02 | ES 189 | 572273    | 1885.J24.gz43_239383 |
| M00057066D:B03 | ES 189 | 558549    | 1885.K03.gz43_239048 |
| M00057066D:E01 | ES 189 | 627515    | 1885.K06.gz43_239096 |
| M00057067B:C11 | ES 189 | 550637    | 1885.K11.gz43_239176 |
| M00057067B:H04 | ES 189 | 449996    | 1885.K15.gz43_239240 |
| M00057067C:D04 | ES 189 | 736146    | 1885.K17.gz43_239272 |
| M00057067C:H09 | ES 189 | 730128    | 1885.K19.gz43_239304 |
| M00057067D:F03 | ES 189 | 472704    | 1885.K23.gz43_239368 |
| M00057067D:H06 | ES 189 | 726699    | 1885.L02.gz43_239033 |
| M00057068A:C10 | ES 189 | 736093    | 1885.L03.gz43_239049 |
| M00057068A:E07 | ES 189 | 73846     | 1885.L04.gz43_239065 |
| M00057068A:F05 | ES 189 | 559656    | 1885.L05.gz43_239081 |
| M00057068A:F07 | ES 189 | 730528    | 1885.L06.gz43_239097 |
| M00057068A:G05 | ES 189 | 736415    | 1885.L08.gz43_239129 |
| M00057068D:B03 | ES 189 | 724773    | 1885.L20.gz43_239321 |
| M00057068D:C09 | ES 189 | 455248    | 1885.L22.gz43_239353 |
| M00057068D:E05 | ES 189 | 736210    | 1885.L24.gz43_239385 |
| M00057068D:F04 | ES 189 | 554854    | 1885.M01.gz43_239018 |
| M00057069A:F09 | ES 189 | 560581    | 1885.M09.gz43_239146 |
| M00057069A:H08 | ES 189 | 732072    | 1885.M10.gz43_239162 |
| M00057069B:A08 | ES 189 | 453508    | 1885.M11.gz43_239178 |
| M00057069B:D07 | ES 189 | 656268    | 1885.M13.gz43_239210 |
| M00057069B:E07 | ES 189 | 465470    | 1885.M15.gz43_239242 |
| M00057069D:H09 | ES 189 | 730697    | 1885.N02.gz43_239035 |
| M00057070A:B07 | ES 189 | 556385    | 1885.N04.gz43_239067 |
| M00057070C:H10 | ES 189 | 706245    | 1885.N18.gz43_239291 |
| M00057070D:B08 | ES 189 | 735028    | 1885.N20.gz43_239323 |
| M00057070D:G03 | ES 189 | 649349    | 1885.N23.gz43_239371 |
| M00057071A:A10 | ES 189 | 731262    | 1885.O01.gz43_239020 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057071A:B04 | ES 189 | 624133    | 1885.O02.gz43_239036 |
| M00057071C:G10 | ES 189 | 469852    | 1885.O15.gz43_239244 |
| M00057071D:E01 | ES 189 | 447758    | 1885.O21.gz43_239340 |
| M00057071D:G01 | ES 189 | 732351    | 1885.O22.gz43_239356 |
| M00057072A:C06 | ES 189 | 456530    | 1885.P02.gz43_239037 |
| M00057072A:G04 | ES 189 | 448727    | 1885.P04.gz43_239069 |
| M00057072B:E02 | ES 189 | 422687    | 1885.P08.gz43_239133 |
| M00057072C:A03 | ES 189 | 452224    | 1885.P10.gz43_239165 |
| M00057072C:A09 | ES 189 | 735283    | 1885.P12.gz43_239197 |
| M00057072C:C02 | ES 189 | 734787    | 1885.P14.gz43_239229 |
| M00057072C:H01 | ES 189 | 631526    | 1885.P18.gz43_239293 |
| M00057073A:B12 | ES 189 | 620159    | 1885.P22.gz43_239357 |
| M00057073D:H05 | ES 189 | 732487    | 1886.A18.gz43_239662 |
| M00057077A:A07 | ES 189 | 630291    | 1886.C24.gz43_239760 |
| M00057077B:B06 | ES 189 | 639629    | 1886.D03.gz43_239425 |
| M00057077B:D02 | ES 189 | 726786    | 1886.D06.gz43_239473 |
| M00057078A:E06 | ES 189 | 450563    | 1886.D19.gz43_239681 |
| M00057079A:F05 | ES 189 | 556212    | 1886.E23.gz43_239746 |
| M00057082C:G03 | ES 189 | 368965    | 1886.H07.gz43_239493 |
| M00057087B:A07 | ES 189 | 733910    | 1886.L03.gz43_239433 |
| M00057087B:G10 | ES 189 | 727461    | 1886.L05.gz43_239465 |
| M00057087D:B04 | ES 189 | 734059    | 1886.L13.gz43_239593 |
| M00057088B:E02 | ES 189 | 731358    | 1886.M02.gz43_239418 |
| M00057089B:D01 | ES 189 | 538582    | 1886.M20.gz43_239706 |
| M00057089D:E03 | ES 189 | 731966    | 1886.M24.gz43_239770 |
| M00057090A:B02 | ES 189 | 473588    | 1886.N04.gz43_239451 |
| M00057090A:C03 | ES 189 | 727407    | 1886.N05.gz43_239467 |
| M00057091D:F11 | ES 189 | 732131    | 1886.O22.gz43_239740 |
| M00057092A:H02 | ES 189 | 729446    | 1886.P06.gz43_239485 |
| M00057092C:A05 | ES 189 | 419465    | 1886.P15.gz43_239629 |
| M00057092C:B10 | ES 189 | 729792    | 1886.P16.gz43_239645 |
| M00057093C:A02 | ES 189 | 553898    | 1887.A08.gz43_239903 |
| M00057093C:E01 | ES 189 | 736634    | 1887.A11.gz43_239951 |
| M00057093D:A11 | ES 189 | 557606    | 1887.A17.gz43_240047 |
| M00057094B:D07 | ES 189 | 533689    | 1887.B05.gz43_239856 |
| M00057095A:F11 | ES 189 | 735113    | 1887.B21.gz43_240112 |
| M00057095B:G03 | ES 189 | 732873    | 1887.C02.gz43_239809 |
| M00057096B:C05 | ES 189 | 477387    | 1887.C20.gz43_240097 |
| M00057096B:E06 | ES 189 | 730697    | 1887.C23.gz43_240145 |
| M00057096C:B08 | ES 189 | 731477    | 1887.D04.gz43_239842 |
| M00057096D:H05 | ES 189 | 457842    | 1887.D11.gz43_239954 |
| M00057097B:E02 | ES 189 | 729222    | 1887.D20.gz43_240098 |
| M00057098A:A04 | ES 189 | 560885    | 1887.E11.gz43_239955 |
| M00057099A:C04 | ES 189 | 644354    | 1887.F09.gz43_239924 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057099A:H12 | ES 189 | 645139    | 1887.F10.gz43_239940 |
| M00057099B:A06 | ES 189 | 654475    | 1887.F11.gz43_239956 |
| M00057099B:D02 | ES 189 | 733148    | 1887.F15.gz43_240020 |
| M00057099B:H11 | ES 189 | 630655    | 1887.F18.gz43_240068 |
| M00057099C:A06 | ES 189 | 733972    | 1887.F20.gz43_240100 |
| M00057099D:D11 | ES 189 | 732550    | 1887.G02.gz43_239813 |
| M00057100C:F02 | ES 189 | 735584    | 1887.G18.gz43_240069 |
| M00057100C:F03 | ES 189 | 559361    | 1887.G19.gz43_240085 |
| M00057100D:B06 | ES 189 | 736409    | 1887.H02.gz43_239814 |
| M00057100D:E09 | ES 189 | 735515    | 1887.H05.gz43_239862 |
| M00057102A:F12 | ES 189 | 485441    | 1887.I04.gz43_239847 |
| M00057102B:E12 | ES 189 | 543772    | 1887.I12.gz43_239975 |
| M00057102D:C11 | ES 189 | 452276    | 1887.I17.gz43_240055 |
| M00057103A:F11 | ES 189 | 650920    | 1887.I21.gz43_240119 |
| M00057103A:G01 | ES 189 | 737031    | 1887.I22.gz43_240135 |
| M00057104A:H06 | ES 189 | 448325    | 1887.J19.gz43_240088 |
| M00057104D:A02 | ES 189 | 731697    | 1887.K09.gz43_239929 |
| M00057105C:C06 | ES 189 | 516799    | 1887.L07.gz43_239898 |
| M00057105C:G02 | ES 189 | 734344    | 1887.L12.gz43_239978 |
| M00057105D:C10 | ES 189 | 733209    | 1887.L14.gz43_240010 |
| M00057106A:H04 | ES 189 | 678846    | 1887.M06.gz43_239883 |
| M00057108B:A12 | ES 189 | 693869    | 1887.N12.gz43_239980 |
| M00057109A:B02 | ES 189 | 729992    | 1887.O06.gz43_239885 |
| M00057109A:F11 | ES 189 | 732885    | 1887.O10.gz43_239949 |
| M00057109A:H09 | ES 189 | 733348    | 1887.O12.gz43_239981 |
| M00057109C:D10 | ES 189 | 732312    | 1887.O19.gz43_240093 |
| M00057110A:A03 | ES 189 | 729560    | 1887.O24.gz43_240173 |
| M00057110A:E12 | ES 189 | 651121    | 1887.P02.gz43_239822 |
| M00057110C:A04 | ES 189 | 638908    | 1887.P06.gz43_239886 |
| M00057110C:B09 | ES 189 | 736009    | 1887.P08.gz43_239918 |
| M00057110D:E12 | ES 189 | 736220    | 1887.P17.gz43_240062 |
| M00057112A:C12 | ES 189 | 415825    | 1888.A01.gz43_240175 |
| M00057112D:G08 | ES 189 | 724952    | 1888.A18.gz43_240447 |
| M00057113A:A08 | ES 189 | 733171    | 1888.A20.gz43_240479 |
| M00057113B:F03 | ES 189 | 551624    | 1888.A23.gz43_240527 |
| M00057114C:E07 | ES 189 | 735018    | 1888.B20.gz43_240480 |
| M00057114C:F08 | ES 189 | 728479    | 1888.B21.gz43_240496 |
| M00057115B:G06 | ES 189 | 734737    | 1888.C18.gz43_240449 |
| M00057115C:B11 | ES 189 | 643517    | 1888.C19.gz43_240465 |
| M00057115D:C10 | ES 189 | 733225    | 1888.D01.gz43_240178 |
| M00057115D:D06 | ES 189 | 732113    | 1888.D02.gz43_240194 |
| M00057115D:F06 | ES 189 | 602673    | 1888.D05.gz43_240242 |
| M00057116A:B06 | ES 189 | 732896    | 1888.D07.gz43_240274 |
| M00057116C:H09 | ES 189 | 732476    | 1888.D23.gz43_240530 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057116D:B10 | ES 189 | 474108    | 1888.D24.gz43_240546 |
| M00057117D:H06 | ES 189 | 733802    | 1888.E21.gz43_240499 |
| M00057118B:B04 | ES 189 | 602012    | 1888.F02.gz43_240196 |
| M00057118B:E10 | ES 189 | 553264    | 1888.F06.gz43_240260 |
| M00057120A:D01 | ES 189 | 555655    | 1888.G06.gz43_240261 |
| M00057120B:E08 | ES 189 | 730565    | 1888.G11.gz43_240341 |
| M00057120C:B09 | ES 189 | 453733    | 1888.G12.gz43_240357 |
| M00057120C:F08 | ES 189 | 609459    | 1888.G14.gz43_240389 |
| M00057121B:H10 | ES 189 | 553338    | 1888.H09.gz43_240310 |
| M00057121C:E08 | ES 189 | 552783    | 1888.H12.gz43_240358 |
| M00057122A:A07 | ES 189 | 639923    | 1888.H17.gz43_240438 |
| M00057122A:C04 | ES 189 | 647374    | 1888.H18.gz43_240454 |
| M00057122A:C11 | ES 189 | 733006    | 1888.H19.gz43_240470 |
| M00057122B:F04 | ES 189 | 656263    | 1888.H23.gz43_240534 |
|                |        |           |                      |
| M00057122C:H08 | ES 190 | 418482    | 1888.I06.gz43_240263 |
| M00057122D:A01 | ES 190 | 733365    | 1888.I07.gz43_240279 |
| M00057123A:F09 | ES 190 | 732937    | 1888.I12.gz43_240359 |
| M00057123A:H09 | ES 190 | 729299    | 1888.I15.gz43_240407 |
| M00057123C:D03 | ES 190 | 569256    | 1888.I18.gz43_240455 |
| M00057123D:F07 | ES 190 | 734606    | 1888.I22.gz43_240519 |
| M00057124A:G08 | ES 190 | 736539    | 1888.J04.gz43_240232 |
| M00057125A:A07 | ES 190 | 726575    | 1888.J21.gz43_240504 |
| M00057125A:A12 | ES 190 | 449770    | 1888.J22.gz43_240520 |
| M00057125A:F07 | ES 190 | 727142    | 1888.J24.gz43_240552 |
| M00057125C:B11 | ES 190 | 736534    | 1888.K06.gz43_240265 |
| M00057125C:E02 | ES 190 | 730122    | 1888.K10.gz43_240329 |
| M00057125D:B02 | ES 190 | 542490    | 1888.K12.gz43_240361 |
| M00057125D:B09 | ES 190 | 729519    | 1888.K13.gz43_240377 |
| M00057126C:C05 | ES 190 | 662617    | 1888.K23.gz43_240537 |
| M00057126D:A04 | ES 190 | 568632    | 1888.L03.gz43_240218 |
| M00057127A:E10 | ES 190 | 553087    | 1888.L12.gz43_240362 |
| M00057127A:H10 | ES 190 | 735959    | 1888.L15.gz43_240410 |
| M00057127B:D10 | ES 190 | 454961    | 1888.L18.gz43_240458 |
| M00057127C:F03 | ES 190 | 447692    | 1888.L24.gz43_240554 |
| M00057128A:B04 | ES 190 | 556867    | 1888.M08.gz43_240299 |
| M00057128C:H02 | ES 190 | 735514    | 1888.M24.gz43_240555 |
| M00057129D:D07 | ES 190 | 440284    | 1888.N24.gz43_240556 |
| M00057129D:F03 | ES 190 | 451764    | 1888.O06.gz43_240269 |
| M00057130A:A02 | ES 190 | 736548    | 1888.O08.gz43_240301 |
| M00057130A:A11 | ES 190 | 288535    | 1888.O10.gz43_240333 |
| M00057130A:D10 | ES 190 | 736810    | 1888.O14.gz43_240397 |
| M00057131D:D02 | ES 190 | 726176    | 1888.P17.gz43_240446 |
| M00057131D:D07 | ES 190 | 735131    | 1888.P18.gz43_240462 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057132B:H05 | ES 190 | 639644    | 1897.A02.gz43_240575 |
| M00057132C:C04 | ES 190 | 733951    | 1897.A04.gz43_240607 |
| M00057133A:B07 | ES 190 | 550227    | 1897.A15.gz43_240783 |
| M00057133C:B02 | ES 190 | 536225    | 1897.B05.gz43_240624 |
| M00057134B:D06 | ES 190 | 472068    | 1897.C03.gz43_240593 |
| M00057135A:B02 | ES 190 | 735989    | 1897.C23.gz43_240913 |
| M00057135A:H03 | ES 190 | 732544    | 1897.D01.gz43_240562 |
| M00057135D:D01 | ES 190 | 731476    | 1897.D12.gz43_240738 |
| M00057136A:F01 | ES 190 | 726810    | 1897.D18.gz43_240834 |
| M00057136B:F06 | ES 190 | 514142    | 1897.D21.gz43_240882 |
| M00057137A:C01 | ES 190 | 562008    | 1897.E02.gz43_240579 |
| M00057137A:H12 | ES 190 | 225960    | 1897.E06.gz43_240643 |
| M00057137B:C07 | ES 190 | 640662    | 1897.E12.gz43_240739 |
| M00057138A:F02 | ES 190 | 736288    | 1897.F05.gz43_240628 |
| M00057138B:B02 | ES 190 | 642273    | 1897.F09.gz43_240692 |
| M00057138B:H02 | ES 190 | 543772    | 1897.F12.gz43_240740 |
| M00057138C:D06 | ES 190 | 723853    | 1897.F15.gz43_240788 |
| M00057138D:F03 | ES 190 | 736318    | 1897.F18.gz43_240836 |
| M00057138D:F10 | ES 190 | 726440    | 1897.F19.gz43_240852 |
| M00057139A:B10 | ES 190 | 489001    | 1897.F23.gz43_240916 |
| M00057139A:G08 | ES 190 | 568031    | 1897.G02.gz43_240581 |
| M00057139A:G12 | ES 190 | 492691    | 1897.G04.gz43_240613 |
| M00057139D:G07 | ES 190 | 731317    | 1897.G19.gz43_240853 |
| M00057140B:H01 | ES 190 | 655327    | 1897.H08.gz43_240678 |
| M00057140D:B03 | ES 190 | 500758    | 1897.H15.gz43_240790 |
| M00057140D:F02 | ES 190 | 567005    | 1897.H17.gz43_240822 |
| M00057141A:D09 | ES 190 | 732965    | 1897.H20.gz43_240870 |
| M00057141A:G06 | ES 190 | 462779    | 1897.H23.gz43_240918 |
| M00057142A:H07 | ES 190 | 449035    | 1897.I18.gz43_240839 |
| M00057142B:F06 | ES 190 | 559004    | 1897.I22.gz43_240903 |
| M00057144B:B07 | ES 190 | 735087    | 1897.K12.gz43_240745 |
| M00057144B:D04 | ES 190 | 658271    | 1897.K13.gz43_240761 |
| M00057144B:F10 | ES 190 | 591449    | 1897.K16.gz43_240809 |
| M00057144B:H10 | ES 190 | 523171    | 1897.K17.gz43_240825 |
| M00057144C:A02 | ES 190 | 486076    | 1897.K18.gz43_240841 |
| M00057144C:G04 | ES 190 | 567122    | 1897.K23.gz43_240921 |
| M00057144C:G08 | ES 190 | 470684    | 1897.K24.gz43_240937 |
| M00057144D:D03 | ES 190 | 555960    | 1897.L02.gz43_240586 |
| M00057145B:B07 | ES 190 | 735131    | 1897.L12.gz43_240746 |
| M00057145B:E06 | ES 190 | 642570    | 1897.L14.gz43_240778 |
| M00057145C:H03 | ES 190 | 448202    | 1897.L22.gz43_240906 |
| M00057145D:E01 | ES 190 | 462779    | 1897.M02.gz43_240587 |
| M00057146A:H05 | ES 190 | 735801    | 1897.M12.gz43_240747 |
| M00057146B:C06 | ES 190 | 735283    | 1897.M13.gz43_240763 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057146B:H12 | ES 190 | 397515    | 1897.M17.gz43_240827 |
| M00057146D:F05 | ES 190 | 549461    | 1897.M24.gz43_240939 |
| M00057147A:B07 | ES 190 | 728413    | 1897.N03.gz43_240604 |
| M00057147A:E11 | ES 190 | 642936    | 1897.N06.gz43_240652 |
| M00057147A:H07 | ES 190 | 735729    | 1897.N08.gz43_240684 |
| M00057147C:B01 | ES 190 | 457846    | 1897.N12.gz43_240748 |
| M00057147C:G01 | ES 190 | 730190    | 1897.N14.gz43_240780 |
| M00057147D:H09 | ES 190 | 718314    | 1897.N22.gz43_240908 |
| M00057148B:G07 | ES 190 | 621226    | 1897.O05.gz43_240637 |
| M00057148C:B02 | ES 190 | 549285    | 1897.O09.gz43_240701 |
| M00057148C:C09 | ES 190 | 736318    | 1897.O12.gz43_240749 |
| M00057149A:A04 | ES 190 | 729843    | 1897.O18.gz43_240845 |
| M00057149B:B07 | ES 190 | 519378    | 1897.P03.gz43_240606 |
| M00057149B:B08 | ES 190 | 448212    | 1897.P04.gz43_240622 |
| M00057149C:H01 | ES 190 | 735756    | 1897.P11.gz43_240734 |
| M00057150D:C04 | ES 190 | 447003    | 1898.A03.gz43_242227 |
| M00057150D:F08 | ES 190 | 450724    | 1898.A05.gz43_242259 |
| M00057151A:B04 | ES 190 | 650297    | 1898.A06.gz43_242275 |
| M00057152B:H02 | ES 190 | 480307    | 1898.B05.gz43_242260 |
| M00057152C:C10 | ES 190 | 640603    | 1898.B10.gz43_242340 |
| M00057152C:C12 | ES 190 | 527789    | 1898.B12.gz43_242372 |
| M00057153B:A04 | ES 190 | 734484    | 1898.B22.gz43_242532 |
| M00057153B:D02 | ES 190 | 734808    | 1898.B24.gz43_242564 |
| M00057153B:G07 | ES 190 | 596809    | 1898.C02.gz43_242213 |
| M00057153D:H01 | ES 190 | 551654    | 1898.C15.gz43_242421 |
| M00057154C:F04 | ES 190 | 456816    | 1898.C21.gz43_242517 |
| M00057154D:H07 | ES 190 | 400314    | 1898.C23.gz43_242549 |
| M00057155A:E11 | ES 190 | 730661    | 1898.D04.gz43_242246 |
| M00057155A:G11 | ES 190 | 730341    | 1898.D07.gz43_242294 |
| M00057155A:H07 | ES 190 | 640563    | 1898.D08.gz43_242310 |
| M00057155C:B07 | ES 190 | 735993    | 1898.D12.gz43_242374 |
| M00057155C:G04 | ES 190 | 558477    | 1898.D15.gz43_242422 |
| M00057155C:H07 | ES 190 | 448510    | 1898.D16.gz43_242438 |
| M00057155D:E12 | ES 190 | 480142    | 1898.D22.gz43_242534 |
| M00057156B:D10 | ES 190 | 491933    | 1898.E06.gz43_242279 |
| M00057156C:E08 | ES 190 | 552972    | 1898.E10.gz43_242343 |
| M00057156D:F02 | ES 190 | 734928    | 1898.E17.gz43_242455 |
| M00057157D:H08 | ES 190 | 727608    | 1898.F05.gz43_242264 |
| M00057158B:C02 | ES 190 | 736030    | 1898.F10.gz43_242344 |
| M00057158C:C10 | ES 190 | 727976    | 1898.F17.gz43_242456 |
| M00057158C:G05 | ES 190 | 736790    | 1898.F19.gz43_242488 |
| M00057159C:E11 | ES 190 | 736228    | 1898.G11.gz43_242361 |
| M00057160A:C02 | ES 190 | 567122    | 1898.G16.gz43_242441 |
| M00057160A:F11 | ES 190 | 736940    | 1898.G18.gz43_242473 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057160B:G08 | ES 190 | 454073    | 1898.G22.gz43_242537 |
| M00057160D:A11 | ES 190 | 461316    | 1898.H04.gz43_242250 |
| M00057161B:D02 | ES 190 | 402516    | 1898.H12.gz43_242378 |
| M00057161B:E07 | ES 190 | 735756    | 1898.H14.gz43_242410 |
| M00057161B:F04 | ES 190 | 448381    | 1898.H16.gz43_242442 |
| M00057161D:H08 | ES 190 | 730377    | 1898.I06.gz43_242283 |
| M00057162B:E10 | ES 190 | 728353    | 1898.I15.gz43_242427 |
| M00057162C:C01 | ES 190 | 735633    | 1898.I21.gz43_242523 |
| M00057163A:D11 | ES 190 | 483529    | 1898.J08.gz43_242316 |
| M00057163A:E09 | ES 190 | 607351    | 1898.J09.gz43_242332 |
| M00057163C:D06 | ES 190 | 736288    | 1898.J16.gz43_242444 |
| M00057165C:E01 | ES 190 | 736878    | 1898.L21.gz43_242526 |
| M00057165C:E08 | ES 190 | 599714    | 1898.L22.gz43_242542 |
| M00057165C:F05 | ES 190 | 723915    | 1898.L23.gz43_242558 |
| M00057165D:H05 | ES 190 | 648820    | 1898.M11.gz43_242367 |
| M00057166B:B07 | ES 190 | 736634    | 1898.M15.gz43_242431 |
| M00057166B:F05 | ES 190 | 448563    | 1898.M20.gz43_242511 |
| M00057166B:G06 | ES 190 | 737042    | 1898.M22.gz43_242543 |
| M00057166C:A10 | ES 190 | 449529    | 1898.N03.gz43_242240 |
| M00057167A:D08 | ES 190 | 726448    | 1898.N13.gz43_242400 |
| M00057167C:A05 | ES 190 | 732253    | 1898.N22.gz43_242544 |
| M00057168B:D02 | ES 190 | 583625    | 1898.O12.gz43_242385 |
| M00057168C:D03 | ES 190 | 737006    | 1898.O23.gz43_242561 |
| M00057169A:F05 | ES 190 | 649852    | 1898.P05.gz43_242274 |
| M00057169A:F06 | ES 190 | 733552    | 1898.P06.gz43_242290 |
| M00057169C:H10 | ES 190 | 737006    | 1898.P15.gz43_242434 |
| M00057169C:H12 | ES 190 | 734794    | 1898.P16.gz43_242450 |
| M00057170A:D06 | ES 190 | 733972    | 1899.A01.gz43_242579 |
| M00057170A:D11 | ES 190 | 471887    | 1898.P24.gz43_242578 |
| M00057170A:H04 | ES 190 | 730220    | 1899.A06.gz43_242659 |
| M00057170B:G01 | ES 190 | 734724    | 1899.A11.gz43_242739 |
| M00057170C:C01 | ES 190 | 725691    | 1899.A14.gz43_242787 |
| M00057170D:B08 | ES 190 | 480623    | 1899.A23.gz43_242931 |
| M00057172A:B02 | ES 190 | 723985    | 1899.B19.gz43_242868 |
| M00057172A:B04 | ES 190 | 549128    | 1899.B20.gz43_242884 |
| M00057172A:H06 | ES 190 | 639507    | 1899.B22.gz43_242916 |
| M00057172D:F08 | ES 190 | 473238    | 1899.C09.gz43_242709 |
| M00057173A:C07 | ES 190 | 528404    | 1899.C11.gz43_242741 |
| M00057173C:C07 | ES 190 | 535866    | 1899.C21.gz43_242901 |
| M00057173D:B12 | ES 190 | 562453    | 1899.D02.gz43_242598 |
| M00057173D:C07 | ES 190 | 729039    | 1899.D03.gz43_242614 |
| M00057173D:E04 | ES 190 | 422590    | 1899.D04.gz43_242630 |
| M00057174B:C06 | ES 190 | 734209    | 1899.D11.gz43_242742 |
| M00057174B:C11 | ES 190 | 561632    | 1899.D13.gz43_242774 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057174B:F11 | ES 190 | 421794    | 1899.D15.gz43_242806 |
| M00057174B:G03 | ES 190 | 734744    | 1899.D16.gz43_242822 |
| M00057174B:G12 | ES 190 | 448770    | 1899.D17.gz43_242838 |
| M00057174C:G07 | ES 190 | 648221    | 1899.D21.gz43_242902 |
| M00057175B:G12 | ES 190 | 732625    | 1899.E08.gz43_242695 |
| M00057175C:D02 | ES 190 | 731370    | 1899.E13.gz43_242775 |
| M00057175C:F01 | ES 190 | 451812    | 1899.E16.gz43_242823 |
| M00057175D:A12 | ES 190 | 532904    | 1899.E17.gz43_242839 |
| M00057175D:E12 | ES 190 | 451383    | 1899.E22.gz43_242919 |
| M00057176A:A04 | ES 190 | 734692    | 1899.F01.gz43_242584 |
| M00057176A:C02 | ES 190 | 735235    | 1899.F03.gz43_242616 |
| M00057176A:H10 | ES 190 | 735764    | 1899.F07.gz43_242680 |
| M00057176A:H12 | ES 190 | 462986    | 1899.F08.gz43_242696 |
| M00057176B:B07 | ES 190 | 639779    | 1899.F11.gz43_242744 |
| M00057176B:F10 | ES 190 | 735605    | 1899.F16.gz43_242824 |
| M00057176C:H08 | ES 190 | 573733    | 1899.F19.gz43_242872 |
| M00057176D:A03 | ES 190 | 625988    | 1899.F20.gz43_242888 |
| M00057177C:D07 | ES 190 | 625988    | 1899.G12.gz43_242761 |
| M00057177C:G11 | ES 190 | 480142    | 1899.G13.gz43_242777 |
| M00057177C:H04 | ES 190 | 732429    | 1899.G15.gz43_242809 |
| M00057177D:G05 | ES 190 | 734726    | 1899.G22.gz43_242921 |
| M00057179C:B05 | ES 190 | 449548    | 1899.H05.gz43_242650 |
| M00057179C:G10 | ES 190 | 482512    | 1899.H08.gz43_242698 |
| M00057179D:B09 | ES 190 | 494423    | 1899.H09.gz43_242714 |
| M00057180A:H11 | ES 190 | 530883    | 1899.H15.gz43_242810 |
| M00057180B:C06 | ES 190 | 718314    | 1899.H18.gz43_242858 |
| M00057180B:D01 | ES 190 | 475872    | 1899.H19.gz43_242874 |
| M00057180B:F05 | ES 190 | 736280    | 1899.H21.gz43_242906 |
| M00057180B:G06 | ES 190 | 674526    | 1899.H23.gz43_242938 |
| M00057180B:H05 | ES 190 | 550588    | 1899.H24.gz43_242954 |
| M00057180C:F09 | ES 190 | 736309    | 1899.I06.gz43_242667 |
|                |        |           |                      |
| M00057180D:C10 | ES 191 | 735789    | 1899.I09.gz43_242715 |
| M00057180D:G06 | ES 191 | 488447    | 1899.I11.gz43_242747 |
| M00057181C:D10 | ES 191 | 554221    | 1899.J01.gz43_242588 |
| M00057181C:G07 | ES 191 | 560183    | 1899.J03.gz43_242620 |
| M00057181D:C09 | ES 191 | 735801    | 1899.J07.gz43_242684 |
| M00057181D:H07 | ES 191 | 452243    | 1899.J11.gz43_242748 |
| M00057182A:H07 | ES 191 | 737116    | 1899.J18.gz43_242860 |
| M00057182B:D09 | ES 191 | 736773    | 1899.J22.gz43_242924 |
| M00057182C:C03 | ES 191 | 642936    | 1899.K04.gz43_242637 |
| M00057182C:C11 | ES 191 | 373615    | 1899.K06.gz43_242669 |
| M00057182D:A08 | ES 191 | 477098    | 1899.K07.gz43_242685 |
| M00057182D:B11 | ES 191 | 736595    | 1899.K09.gz43_242717 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057186A:B03 | ES 191 | 732244    | 1899.K14.gz43_242797 |
| M00057186A:E12 | ES 191 | 560568    | 1899.K17.gz43_242845 |
| M00057186B:E07 | ES 191 | 636748    | 1899.K22.gz43_242925 |
| M00057189A:A08 | ES 191 | 735871    | 1899.L05.gz43_242654 |
| M00057189C:G11 | ES 191 | 736354    | 1899.L20.gz43_242894 |
| M00057189D:B08 | ES 191 | 733623    | 1899.L22.gz43_242926 |
| M00057189D:G08 | ES 191 | 554683    | 1899.M02.gz43_242607 |
| M00057191A:H09 | ES 191 | 734031    | 1899.M07.gz43_242687 |
| M00057191B:C06 | ES 191 | 735514    | 1899.M09.gz43_242719 |
| M00057191C:D02 | ES 191 | 727523    | 1899.M14.gz43_242799 |
| M00057191D:B08 | ES 191 | 463402    | 1899.M17.gz43_242847 |
| M00057191D:G10 | ES 191 | 734928    | 1899.M22.gz43_242927 |
| M00057192A:B04 | ES 191 | 730805    | 1899.M23.gz43_242943 |
| M00057192A:D05 | ES 191 | 724061    | 1899.M24.gz43_242959 |
| M00057192A:D12 | ES 191 | 735426    | 1899.N01.gz43_242592 |
| M00057192A:F01 | ES 191 | 474346    | 1899.N02.gz43_242608 |
| M00057192A:H05 | ES 191 | 730106    | 1899.N04.gz43_242640 |
| M00057192B:D10 | ES 191 | 419711    | 1899.N07.gz43_242688 |
| M00057192C:B11 | ES 191 | 730899    | 1899.N10.gz43_242736 |
| M00057192D:C10 | ES 191 | 734724    | 1899.N13.gz43_242784 |
| M00057192D:G02 | ES 191 | 726786    | 1899.N16.gz43_242832 |
| M00057192D:G04 | ES 191 | 736402    | 1899.N17.gz43_242848 |
| M00057193B:C11 | ES 191 | 156329    | 1899.N21.gz43_242912 |
| M00057193C:F11 | ES 191 | 640635    | 1899.O06.gz43_242673 |
| M00057193D:F06 | ES 191 | 630516    | 1899.O09.gz43_242721 |
| M00057194A:B07 | ES 191 | 734061    | 1899.O11.gz43_242753 |
| M00057194A:C06 | ES 191 | 736049    | 1899.O13.gz43_242785 |
| M00057194A:F01 | ES 191 | 725089    | 1899.O16.gz43_242833 |
| M00057194A:H01 | ES 191 | 724061    | 1899.O18.gz43_242865 |
| M00057194B:E05 | ES 191 | 721768    | 1899.O21.gz43_242913 |
| M00057194B:H08 | ES 191 | 728061    | 1899.O24.gz43_242961 |
| M00057194C:A03 | ES 191 | 454812    | 1899.P01.gz43_242594 |
| M00057194C:F02 | ES 191 | 736861    | 1899.P05.gz43_242658 |
| M00057194C:F10 | ES 191 | 390968    | 1899.P07.gz43_242690 |
| M00057194D:C12 | ES 191 | 552055    | 1899.P10.gz43_242738 |
| M00057196A:E03 | ES 191 | 729173    | 1899.P15.gz43_242818 |
| M00057196B:H10 | ES 191 | 516729    | 1899.P17.gz43_242850 |
| M00057197D:H10 | ES 191 | 735797    | 1900.A14.gz43_243171 |
| M00057198B:C02 | ES 191 | 161489    | 1900.A20.gz43_243267 |
| M00057199B:B06 | ES 191 | 516729    | 1900.B08.gz43_243076 |
| M00057199C:H08 | ES 191 | 483061    | 1900.B12.gz43_243140 |
| M00057200B:D04 | ES 191 | 532904    | 1900.B22.gz43_243300 |
| M00057200D:E03 | ES 191 | 730308    | 1900.C04.gz43_243013 |
| M00057201A:H03 | ES 191 | 725905    | 1900.C12.gz43_243141 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057201B:H10 | ES 191 | 494423    | 1900.C20.gz43_243269 |
| M00057202A:D05 | ES 191 | 446752    | 1900.D06.gz43_243046 |
| M00057203B:F08 | ES 191 | 552457    | 1900.E02.gz43_242983 |
| M00057203C:A09 | ES 191 | 734993    | 1900.E04.gz43_243015 |
| M00057203D:A09 | ES 191 | 689424    | 1900.E08.gz43_243079 |
| M00057204A:F11 | ES 191 | 736276    | 1900.E15.gz43_243191 |
| M00057204C:G06 | ES 191 | 561626    | 1900.E24.gz43_243335 |
| M00057205D:G06 | ES 191 | 734226    | 1900.F20.gz43_243272 |
| M00057206A:C06 | ES 191 | 640350    | 1900.G01.gz43_242969 |
| M00057207A:A07 | ES 191 | 736500    | 1900.G20.gz43_243273 |
| M00057207B:F06 | ES 191 | 562320    | 1900.H04.gz43_243018 |
| M00057208B:H08 | ES 191 | 731531    | 1900.I08.gz43_243083 |
| M00057208C:E12 | ES 191 | 732771    | 1900.I14.gz43_243179 |
| M00057210A:C12 | ES 191 | 726449    | 1900.K01.gz43_242973 |
| M00057210C:D09 | ES 191 | 736778    | 1900.K08.gz43_243085 |
| M00057210C:G07 | ES 191 | 730109    | 1900.K12.gz43_243149 |
| M00057211A:D01 | ES 191 | 733272    | 1900.K20.gz43_243277 |
| M00057211B:A08 | ES 191 | 648379    | 1900.K22.gz43_243309 |
| M00057211B:C09 | ES 191 | 653616    | 1900.K24.gz43_243341 |
| M00057211B:G01 | ES 191 | 559754    | 1900.L04.gz43_243022 |
| M00057211C:C06 | ES 191 | 736738    | 1900.L06.gz43_243054 |
| M00057211C:F05 | ES 191 | 451176    | 1900.L09.gz43_243102 |
| M00057212B:D05 | ES 191 | 450284    | 1900.L23.gz43_243326 |
| M00057213C:D06 | ES 191 | 648757    | 1900.M12.gz43_243151 |
| M00057214A:B05 | ES 191 | 736497    | 1900.M19.gz43_243263 |
| M00057214B:B12 | ES 191 | 649490    | 1900.M22.gz43_243311 |
| M00057216C:D12 | ES 191 | 194769    | 1900.N22.gz43_243312 |
| M00057216D:D05 | ES 191 | 556656    | 1900.O04.gz43_243025 |
| M00057216D:E12 | ES 191 | 642985    | 1900.O06.gz43_243057 |
| M00057216D:F10 | ES 191 | 639395    | 1900.O07.gz43_243073 |
| M00057217A:A12 | ES 191 | 724638    | 1900.O10.gz43_243121 |
| M00057217B:F12 | ES 191 | 449078    | 1900.O19.gz43_243265 |
| M00057217D:A06 | ES 191 | 712120    | 1900.P10.gz43_243122 |
| M00057218C:F10 | ES 191 | 454129    | 1909.A04.gz43_243395 |
| M00057219A:D05 | ES 191 | 726251    | 1909.A09.gz43_243475 |
| M00057219A:D07 | ES 191 | 733151    | 1909.A10.gz43_243491 |
| M00057219A:E11 | ES 191 | 733309    | 1909.A12.gz43_243523 |
| M00057219A:H11 | ES 191 | 736988    | 1909.A13.gz43_243539 |
| M00057219B:B10 | ES 191 | 591979    | 1909.A14.gz43_243555 |
| M00057219B:C06 | ES 191 | 474869    | 1909.A15.gz43_243571 |
| M00057219D:C02 | ES 191 | 737010    | 1909.A23.gz43_243699 |
| M00057219D:G11 | ES 191 | 380310    | 1909.B03.gz43_243380 |
| M00057219D:H04 | ES 191 | 733868    | 1909.B04.gz43_243396 |
| M00057220A:C06 | ES 191 | 472811    | 1909.B08.gz43_243460 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057220A:D09 | ES 191 | 642631    | 1909.B09.gz43_243476 |
| M00057220B:A06 | ES 191 | 613067    | 1909.B13.gz43_243540 |
| M00057220B:G01 | ES 191 | 476866    | 1909.B17.gz43_243604 |
| M00057220B:G10 | ES 191 | 735622    | 1909.B18.gz43_243620 |
| M00057220C:A08 | ES 191 | 556852    | 1909.B20.gz43_243652 |
| M00057220C:F08 | ES 191 | 735514    | 1909.B23.gz43_243700 |
| M00057220D:E06 | ES 191 | 465697    | 1909.C03.gz43_243381 |
| M00057220D:F02 | ES 191 | 735510    | 1909.C04.gz43_243397 |
| M00057220D:F06 | ES 191 | 736076    | 1909.C05.gz43_243413 |
| M00057221A:E10 | ES 191 | 453587    | 1909.C10.gz43_243493 |
| M00057221B:B01 | ES 191 | 631111    | 1909.C12.gz43_243525 |
| M00057221B:E11 | ES 191 | 735306    | 1909.C15.gz43_243573 |
| M00057221C:E07 | ES 191 | 553850    | 1909.C22.gz43_243685 |
| M00057221C:F02 | ES 191 | 418682    | 1909.C23.gz43_243701 |
| M00057222B:A06 | ES 191 | 398061    | 1909.D05.gz43_243414 |
| M00057222D:C10 | ES 191 | 735514    | 1909.D11.gz43_243510 |
| M00057223A:F06 | ES 191 | 732899    | 1909.D17.gz43_243606 |
| M00057223B:A07 | ES 191 | 734609    | 1909.D21.gz43_243670 |
| M00057223B:B04 | ES 191 | 736894    | 1909.D22.gz43_243686 |
| M00057223B:G01 | ES 191 | 726892    | 1909.E03.gz43_243383 |
| M00057223C:A01 | ES 191 | 549578    | 1909.E05.gz43_243415 |
| M00057223C:B01 | ES 191 | 727255    | 1909.E06.gz43_243431 |
| M00057223D:H03 | ES 191 | 736738    | 1909.E13.gz43_243543 |
| M00057224A:D07 | ES 191 | 454355    | 1909.E16.gz43_243591 |
| M00057224B:H02 | ES 191 | 727558    | 1909.E24.gz43_243719 |
| M00057224C:B02 | ES 191 | 475562    | 1909.F02.gz43_243368 |
| M00057225A:C08 | ES 191 | 550121    | 1909.F10.gz43_243496 |
| M00057225A:E03 | ES 191 | 602673    | 1909.F11.gz43_243512 |
| M00057225C:F09 | ES 191 | 734562    | 1909.F23.gz43_243704 |
| M00057225C:H07 | ES 191 | 734828    | 1909.G01.gz43_243353 |
| M00057225D:E01 | ES 191 | 734690    | 1909.G05.gz43_243417 |
| M00057226A:B04 | ES 191 | 646552    | 1909.G13.gz43_243545 |
| M00057226A:E09 | ES 191 | 374125    | 1909.G16.gz43_243593 |
| M00057226C:A09 | ES 191 | 734915    | 1909.G23.gz43_243705 |
| M00057226C:E05 | ES 191 | 427113    | 1909.H01.gz43_243354 |
| M00057226C:F05 | ES 191 | 175524    | 1909.H02.gz43_243370 |
| M00057226C:F12 | ES 191 | 642940    | 1909.H04.gz43_243402 |
| M00057226C:H10 | ES 191 | 648140    | 1909.H08.gz43_243466 |
| M00057226D:B03 | ES 191 | 735050    | 1909.H10.gz43_243498 |
| M00057226D:C10 | ES 191 | 735172    | 1909.H11.gz43_243514 |
| M00057227B:A05 | ES 191 | 732159    | 1909.H20.gz43_243658 |
| M00057227B:D12 | ES 191 | 560399    | 1909.H23.gz43_243706 |
| M00057227B:H04 | ES 191 | 607202    | 1909.H24.gz43_243722 |
| M00057229A:B03 | ES 191 | 632499    | 1909.I06.gz43_243435 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057229B:F11 | ES 191 | 647815    | 1909.I11.gz43_243515 |
| M00057229B:G11 | ES 191 | 650599    | 1909.I12.gz43_243531 |
| M00057230B:B07 | ES 191 | 616985    | 1909.I21.gz43_243675 |
| M00057230B:F10 | ES 191 | 641510    | 1909.I24.gz43_243723 |
| M00057230C:C05 | ES 191 | 723959    | 1909.J03.gz43_243388 |
| M00057230C:G12 | ES 191 | 598087    | 1909.J09.gz43_243484 |
| M00057230D:C05 | ES 191 | 456224    | 1909.J12.gz43_243532 |
| M00057231A:D04 | ES 191 | 733149    | 1909.J17.gz43_243612 |
| M00057231A:G04 | ES 191 | 405546    | 1909.J22.gz43_243692 |
| M00057231B:A01 | ES 191 | 561877    | 1909.K01.gz43_243357 |
| M00057231C:B04 | ES 191 | 735749    | 1909.K02.gz43_243373 |
| M00057231C:E06 | ES 191 | 737010    | 1909.K06.gz43_243437 |
| M00057231C:F12 | ES 191 | 398061    | 1909.K09.gz43_243485 |
| M00057231C:G04 | ES 191 | 735140    | 1909.K10.gz43_243501 |
| M00057231D:A04 | ES 191 | 639565    | 1909.K14.gz43_243565 |
| M00057231D:A05 | ES 191 | 732736    | 1909.K15.gz43_243581 |
| M00057231D:F10 | ES 191 | 486051    | 1909.K22.gz43_243693 |
| M00057232B:G02 | ES 191 | 728121    | 1909.L06.gz43_243438 |
| M00057232D:B03 | ES 191 | 555336    | 1909.L12.gz43_243534 |
| M00057232D:B05 | ES 191 | 735131    | 1909.L13.gz43_243550 |
| M00057233A:C04 | ES 191 | 724417    | 1909.L15.gz43_243582 |
| M00057233B:G04 | ES 191 | 454563    | 1909.M01.gz43_243359 |
| M00057233D:G12 | ES 191 | 463513    | 1909.M09.gz43_243487 |
| M00057234B:F06 | ES 191 | 727532    | 1909.M18.gz43_243631 |
| M00057234C:D11 | ES 191 | 664711    | 1909.M23.gz43_243711 |
| M00057234D:A12 | ES 191 | 733874    | 1909.N03.gz43_243392 |
| M00057234D:C09 | ES 191 | 726760    | 1909.N04.gz43_243408 |
| M00057234D:E04 | ES 191 | 601051    | 1909.N05.gz43_243424 |
| M00057235B:A07 | ES 191 | 731467    | 1909.N14.gz43_243568 |
| M00057235C:C08 | ES 191 | 734151    | 1909.N21.gz43_243680 |
| M00057235C:F03 | ES 191 | 734553    | 1909.N22.gz43_243696 |
| M00057235D:A05 | ES 191 | 733160    | 1909.O01.gz43_243361 |
| M00057235D:C03 | ES 191 | 417822    | 1909.O03.gz43_243393 |
| M00057236A:F08 | ES 191 | 450340    | 1909.O10.gz43_243505 |
| M00057236B:D11 | ES 191 | 725120    | 1909.O13.gz43_243553 |
| M00057236C:C07 | ES 191 | 453132    | 1909.O19.gz43_243649 |
| M00057236D:H09 | ES 191 | 625810    | 1909.P01.gz43_243362 |
| M00057237B:D10 | ES 191 | 735817    | 1909.P10.gz43_243506 |
| M00057237D:C11 | ES 191 | 724781    | 1909.P19.gz43_243650 |
| M00057237D:D09 | ES 191 | 473578    | 1909.P22.gz43_243698 |
| M00057238A:D07 | ES 191 | 641680    | 1910.A03.gz43_243763 |
| M00057238B:F05 | ES 191 | 551437    | 1910.A09.gz43_243859 |
| M00057239B:F05 | ES 191 | 647704    | 1910.B07.gz43_243828 |
| M00057239C:E05 | ES 191 | 734466    | 1910.B10.gz43_243876 |

### Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057239C:G07 | ES 191 | 729125    | 1910.B13.gz43_243924 |
| M00057239D:D01 | ES 191 | 456753    | 1910.B16.gz43_243972 |
| M00057240A:F03 | ES 191 | 730028    | 1910.C01.gz43_243733 |
| M00057240B:C01 | ES 191 | 730046    | 1910.C06.gz43_243813 |
|                |        |           |                      |
| M00042351A:H03 | ES 192 | 499660    | 1923.A02.gz43_252631 |
| M00042351C:G01 | ES 192 | 498777    | 1923.A05.gz43_252679 |
| M00042351C:G11 | ES 192 | 452094    | 1923.A06.gz43_252695 |
| M00042351D:D02 | ES 192 | 496446    | 1923.A09.gz43_252743 |
| M00042351D:F08 | ES 192 | 451429    | 1923.A10.gz43_252759 |
| M00057240C:A06 | ES 192 | 733855    | 1910.C13.gz43_243925 |
| M00057241B:B04 | ES 192 | 734094    | 1910.D01.gz43_243734 |
| M00057241D:C04 | ES 192 | 734226    | 1910.D08.gz43_243846 |
| M00057241D:G01 | ES 192 | 733945    | 1910.D14.gz43_243942 |
| M00057242A:H11 | ES 192 | 734808    | 1910.D19.gz43_244022 |
| M00057242B:F07 | ES 192 | 735477    | 1910.D21.gz43_244054 |
| M00057242C:G12 | ES 192 | 611604    | 1910.E01.gz43_243735 |
| M00057242D:C07 | ES 192 | 650067    | 1910.E06.gz43_243815 |
| M00057242D:F10 | ES 192 | 453454    | 1910.E09.gz43_243863 |
| M00057243A:H03 | ES 192 | 457846    | 1910.E15.gz43_243959 |
| M00057243C:D01 | ES 192 | 733552    | 1910.F02.gz43_243752 |
| M00057243C:H11 | ES 192 | 734884    | 1910.F06.gz43_243816 |
| M00057244C:D08 | ES 192 | 481273    | 1910.F22.gz43_244072 |
| M00057244C:E06 | ES 192 | 455821    | 1910.F24.gz43_244104 |
| M00057245A:F03 | ES 192 | 555641    | 1910.G07.gz43_243833 |
| M00057245B:A08 | ES 192 | 43349     | 1910.G10.gz43_243881 |
| M00057245B:E02 | ES 192 | 484964    | 1910.G12.gz43_243913 |
| M00057245D:G02 | ES 192 | 476455    | 1910.G20.gz43_244041 |
| M00057246A:G11 | ES 192 | 558617    | 1910.H01.gz43_243738 |
| M00057246C:B12 | ES 192 | 733991    | 1910.H12.gz43_243914 |
| M00057246D:G09 | ES 192 | 563313    | 1910.H18.gz43_244010 |
| M00057247C:B11 | ES 192 | 734849    | 1910.I03.gz43_243771 |
| M00057247C:C11 | ES 192 | 732859    | 1910.I04.gz43_243787 |
| M00057247C:F10 | ES 192 | 550730    | 1910.I06.gz43_243819 |
| M00057247D:D10 | ES 192 | 734371    | 1910.I10.gz43_243883 |
| M00057248A:H10 | ES 192 | 734894    | 1910.I21.gz43_244059 |
| M00057248B:D11 | ES 192 | 733144    | 1910.J01.gz43_243740 |
| M00057248C:B08 | ES 192 | 733989    | 1910.J06.gz43_243820 |
| M00057249A:B05 | ES 192 | 733055    | 1910.J12.gz43_243916 |
| M00057249A:C06 | ES 192 | 555103    | 1910.J14.gz43_243948 |
| M00057249C:C07 | ES 192 | 473588    | 1910.J21.gz43_244060 |
| M00057249D:G03 | ES 192 | 639779    | 1910.K05.gz43_243805 |
| M00057249D:H09 | ES 192 | 449042    | 1910.K06.gz43_243821 |
| M00057250B:A03 | ES 192 | 731392    | 1910.K11.gz43_243901 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057250B:D04 | ES 192 | 726011    | 1910.K14.gz43_243949 |
| M00057250C:G02 | ES 192 | 735665    | 1910.K21.gz43_244061 |
| M00057251A:F02 | ES 192 | 514838    | 1910.L03.gz43_243774 |
| M00057252A:D10 | ES 192 | 731125    | 1910.L19.gz43_244030 |
| M00057252B:E04 | ES 192 | 647242    | 1910.M01.gz43_243743 |
| M00057252C:D08 | ES 192 | 732978    | 1910.M08.gz43_243855 |
| M00057252D:B10 | ES 192 | 639494    | 1910.M09.gz43_243871 |
| M00057252D:D04 | ES 192 | 585976    | 1910.M12.gz43_243919 |
| M00057253A:C05 | ES 192 | 731238    | 1910.M17.gz43_243999 |
| M00057253A:H10 | ES 192 | 735754    | 1910.M20.gz43_244047 |
| M00057253B:C06 | ES 192 | 725095    | 1910.M22.gz43_244079 |
| M00057253C:A06 | ES 192 | 729428    | 1910.N02.gz43_243760 |
| M00057253C:D11 | ES 192 | 735403    | 1910.N03.gz43_243776 |
| M00057254A:E12 | ES 192 | 477555    | 1910.N12.gz43_243920 |
| M00057254A:G07 | ES 192 | 557353    | 1910.N14.gz43_243952 |
| M00057254B:D04 | ES 192 | 552598    | 1910.N18.gz43_244016 |
| M00057255C:A07 | ES 192 | 558332    | 1910.O17.gz43_244001 |
| M00057255C:C10 | ES 192 | 732962    | 1910.O18.gz43_244017 |
| M00057255D:E02 | ES 192 | 449537    | 1910.O24.gz43_244113 |
| M00057256B:A05 | ES 192 | 661194    | 1910.P09.gz43_243874 |
| M00057256D:A11 | ES 192 | 649390    | 1910.P17.gz43_244002 |
| M00057257A:H10 | ES 192 | 726081    | 1910.P23.gz43_244098 |
| M00057257B:C11 | ES 192 | 514697    | 1910.P24.gz43_244114 |
| M00057258C:C09 | ES 192 | 731516    | 1911.A24.gz43_244483 |
| M00057259D:D11 | ES 192 | 420504    | 1911.B23.gz43_244468 |
| M00057260A:E05 | ES 192 | 630348    | 1911.C02.gz43_244133 |
| M00057260A:E11 | ES 192 | 728756    | 1911.C03.gz43_244149 |
| M00057260C:A04 | ES 192 | 734928    | 1911.C12.gz43_244293 |
| M00057262B:C03 | ES 192 | 482145    | 1911.D07.gz43_244214 |
| M00057265C:F03 | ES 192 | 725951    | 1911.D24.gz43_244486 |
| M00057265D:B12 | ES 192 | 735071    | 1911.E04.gz43_244167 |
| M00057266C:G12 | ES 192 | 554703    | 1911.E24.gz43_244487 |
| M00057266D:B12 | ES 192 | 733570    | 1911.F02.gz43_244136 |
| M00057267A:H04 | ES 192 | 731457    | 1911.F10.gz43_244264 |
| M00057267C:B12 | ES 192 | 650552    | 1911.F17.gz43_244376 |
| M00057267C:G09 | ES 192 | 735687    | 1911.F23.gz43_244472 |
| M00057268A:H05 | ES 192 | 640158    | 1911.G17.gz43_244377 |
| M00057268B:B03 | ES 192 | 652782    | 1911.G18.gz43_244393 |
| M00057268D:E04 | ES 192 | 446247    | 1911.H05.gz43_244186 |
| M00057269C:E01 | ES 192 | 725784    | 1911.H18.gz43_244394 |
| M00057269C:H06 | ES 192 | 732213    | 1911.H22.gz43_244458 |
| M00057269D:F02 | ES 192 | 586794    | 1911.I01.gz43_244123 |
| M00057271A:E04 | ES 192 | 480723    | 1911.J02.gz43_244140 |
| M00057271B:D09 | ES 192 | 450199    | 1911.J06.gz43_244204 |

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057272C:D08 | ES 192 | 728790    | 1911.J23.gz43_244476 |
| M00057273A:C08 | ES 192 | 630655    | 1911.K04.gz43_244173 |
| M00057273B:A12 | ES 192 | 735834    | 1911.K10.gz43_244269 |
| M00057273C:F07 | ES 192 | 736294    | 1911.K14.gz43_244333 |
| M00057273C:F11 | ES 192 | 482985    | 1911.K15.gz43_244349 |
| M00057273D:A06 | ES 192 | 729321    | 1911.K19.gz43_244413 |
| M00057273D:B06 | ES 192 | 474691    | 1911.K20.gz43_244429 |
| M00057274B:C05 | ES 192 | 735249    | 1911.L06.gz43_244206 |
| M00057274C:G01 | ES 192 | 735676    | 1911.L13.gz43_244318 |
| M00057275A:G02 | ES 192 | 456011    | 1911.L21.gz43_244446 |
| M00057275B:A12 | ES 192 | 546642    | 1911.L24.gz43_244494 |
| M00057275B:B02 | ES 192 | 648710    | 1911.M01.gz43_244127 |
| M00057277B:C09 | ES 192 | 736014    | 1911.M11.gz43_244287 |
| M00057277B:E10 | ES 192 | 642142    | 1911.M12.gz43_244303 |
| M00057279A:G02 | ES 192 | 736014    | 1911.N04.gz43_244176 |
| M00057280C:B08 | ES 192 | 734849    | 1911.O01.gz43_244129 |
| M00057281A:D08 | ES 192 | 450692    | 1911.O11.gz43_244289 |
| M00057281A:H02 | ES 192 | 456065    | 1911.O12.gz43_244305 |
| M00057283A:E06 | ES 192 | 736860    | 1911.P04.gz43_244178 |
| M00057283B:D09 | ES 192 | 736860    | 1911.P10.gz43_244274 |
| M00057283D:B12 | ES 192 | 734131    | 1911.P23.gz43_244482 |
| M00057283D:D04 | ES 192 | 552249    | 1911.P24.gz43_244498 |
| M00057287A:H06 | ES 192 | 730187    | 1912.B21.gz43_244820 |
| M00057287C:B12 | ES 192 | 734546    | 1912.C01.gz43_244501 |
| M00057290B:A02 | ES 192 | 728768    | 1912.D08.gz43_244614 |
| M00057290D:G03 | ES 192 | 558045    | 1912.D16.gz43_244742 |
| M00057291B:D08 | ES 192 | 732300    | 1912.D24.gz43_244870 |
| M00057291B:H08 | ES 192 | 730189    | 1912.E03.gz43_244535 |
| M00057292A:B08 | ES 192 | 639427    | 1912.E19.gz43_244791 |
| M00057292C:C09 | ES 192 | 731910    | 1912.F03.gz43_244536 |
| M00057293A:H03 | ES 192 | 737109    | 1912.F12.gz43_244680 |
| M00057293B:H04 | ES 192 | 733856    | 1912.F16.gz43_244744 |
| M00057299C:A08 | ES 192 | 420402    | 1912.H10.gz43_244650 |
| M00057299D:E04 | ES 192 | 424672    | 1912.H15.gz43_244730 |
| M00057300A:A08 | ES 192 | 736449    | 1912.H17.gz43_244762 |
| M00057300A:B06 | ES 192 | 148201    | 1912.H18.gz43_244778 |
| M00057301A:A08 | ES 192 | 726430    | 1912.I11.gz43_244667 |
| M00057302C:D04 | ES 192 | 726874    | 1912.J18.gz43_244780 |
| M00057305B:B10 | ES 192 | 648738    | 1912.L05.gz43_244574 |
| M00057309B:E10 | ES 192 | 481930    | 1912.N06.gz43_244592 |
| M00057314A:A10 | ES 192 | 465528    | 1921.A01.gz43_244883 |
| M00057314B:H06 | ES 192 | 737114    | 1921.A07.gz43_244979 |
| M00057314D:E09 | ES 192 | 726692    | 1921.A16.gz43_245123 |
| M00057314D:F04 | ES 192 | 734894    | 1921.A17.gz43_245139 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057315D:C06 | ES 192 | 736733    | 1921.B06.gz43_244964 |
| M00057316A:A08 | ES 192 | 736551    | 1921.B10.gz43_245028 |
| M00057316A:B04 | ES 192 | 552623    | 1921.B11.gz43_245044 |
| M00057316A:D09 | ES 192 | 727093    | 1921.B12.gz43_245060 |
| M00057316C:A06 | ES 192 | 457092    | 1921.B20.gz43_245188 |
| M00057316D:D02 | ES 192 | 640341    | 1921.C04.gz43_244933 |
| M00057316D:G04 | ES 192 | 734412    | 1921.C06.gz43_244965 |
| M00057318A:B02 | ES 192 | 550085    | 1921.C08.gz43_244997 |
| M00057318B:H05 | ES 192 | 730997    | 1921.C17.gz43_245141 |
| M00057318C:C12 | ES 192 | 480377    | 1921.C20.gz43_245189 |
| M00057318C:G04 | ES 192 | 655312    | 1921.C22.gz43_245221 |
| M00057319D:E06 | ES 192 | 556430    | 1921.D15.gz43_245110 |
| M00057320A:C03 | ES 192 | 641312    | 1921.D21.gz43_245206 |
| M00057320A:G08 | ES 192 | 470199    | 1921.E02.gz43_244903 |
| M00057320B:H03 | ES 192 | 710362    | 1921.E05.gz43_244951 |
| M00057320D:C02 | ES 192 | 447705    | 1921.E11.gz43_245047 |
| M00057323A:F01 | ES 192 | 51616     | 1921.E18.gz43_245159 |
| M00057323B:G04 | ES 192 | 729125    | 1921.F03.gz43_244920 |
| M00057323B:H08 | ES 192 | 77737     | 1921.F04.gz43_244936 |
| M00057323D:E10 | ES 192 | 473225    | 1921.F16.gz43_245128 |
| M00057324A:A09 | ES 192 | 567078    | 1921.F18.gz43_245160 |
| M00057324A:C08 | ES 192 | 727231    | 1921.F19.gz43_245176 |
| M00057324B:A06 | ES 192 | 513306    | 1921.F23.gz43_245240 |
| M00057324B:E04 | ES 192 | 735469    | 1921.G04.gz43_244937 |
| M00057324C:G05 | ES 192 | 731748    | 1921.G11.gz43_245049 |
| M00057324D:E10 | ES 192 | 727013    | 1921.G13.gz43_245081 |
| M00057324D:H03 | ES 192 | 548635    | 1921.G14.gz43_245097 |
| M00057325B:B09 | ES 192 | 557693    | 1921.G17.gz43_245145 |
| M00057325B:D06 | ES 192 | 643005    | 1921.G18.gz43_245161 |
| M00057325B:H04 | ES 192 | 557451    | 1921.G24.gz43_245257 |
| M00057325C:F03 | ES 192 | 484974    | 1921.H03.gz43_244922 |
| M00057326A:E11 | ES 192 | 734522    | 1921.H10.gz43_245034 |
| M00057326D:B10 | ES 192 | 735054    | 1921.H18.gz43_245162 |
| M00057328A:F02 | ES 192 | 733723    | 1921.H21.gz43_245210 |
| M00057328A:F10 | ES 192 | 697006    | 1921.H22.gz43_245226 |
| M00057328C:F11 | ES 192 | 732969    | 1921.I06.gz43_244971 |
| M00057328D:G02 | ES 192 | 556490    | 1921.I10.gz43_245035 |
| M00057331C:E10 | ES 192 | 557177    | 1921.I21.gz43_245211 |
| M00057331C:F10 | ES 192 | 452936    | 1921.I22.gz43_245227 |
| M00057331D:D08 | ES 192 | 549552    | 1921.J01.gz43_244892 |
| M00057332A:C06 | ES 192 | 635849    | 1921.J06.gz43_244972 |
| M00057332C:F12 | ES 192 | 726692    | 1921.J14.gz43_245100 |
| M00057333A:D08 | ES 192 | 733464    | 1921.J19.gz43_245180 |
| M00057333B:F03 | ES 192 | 541793    | 1921.J24.gz43_245260 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00057334A:C12 | ES 192 | 726406    | 1921.K16.gz43_245133 |
| M00057334B:F01 | ES 192 | 734582    | 1921.K21.gz43_245213 |
| M00057334D:A12 | ES 192 | 735425    | 1921.L04.gz43_244942 |
| M00057334D:E03 | ES 192 | 732114    | 1921.L07.gz43_244990 |
| M00057336B:E01 | ES 192 | 727018    | 1921.L13.gz43_245086 |
| M00057336D:F07 | ES 192 | 448431    | 1921.L21.gz43_245214 |
| M00057337A:A06 | ES 192 | 727132    | 1921.L22.gz43_245230 |
| M00057337A:A11 | ES 192 | 482722    | 1921.L23.gz43_245246 |
| M00057337C:G12 | ES 192 | 554647    | 1921.M10.gz43_245039 |
| M00057337C:H07 | ES 192 | 496909    | 1921.M13.gz43_245087 |
| M00057337D:F06 | ES 192 | 614455    | 1921.M16.gz43_245135 |
| M00057338B:D08 | ES 192 | 643909    | 1921.M24.gz43_245263 |
| M00057338C:H01 | ES 192 | 466697    | 1921.N05.gz43_244960 |
| M00057339A:E08 | ES 192 | 551607    | 1921.N12.gz43_245072 |
| M00057339B:C04 | ES 192 | 477688    | 1921.N17.gz43_245152 |
| M00057339D:C01 | ES 192 | 448250    | 1921.O04.gz43_244945 |
| M00057339D:H09 | ES 192 | 733146    | 1921.O06.gz43_244977 |
| M00057341D:B09 | ES 192 | 482788    | 1921.P08.gz43_245010 |
| M00057343D:B10 | ES 192 | 481273    | 1921.P17.gz43_245154 |
| M00057344A:G07 | ES 192 | 642986    | 1921.P24.gz43_245266 |
|                |        |           |                      |
| M00042351D:H05 | ES 193 | 451429    | 1923.A11.gz43_252775 |
| M00042352A:G05 | ES 193 | 451518    | 1923.A14.gz43_252823 |
| M00042352A:G09 | ES 193 | 456672    | 1923.A15.gz43_252839 |
| M00042352B:F03 | ES 193 | 498194    | 1923.A19.gz43_252903 |
| M00042352B:F10 | ES 193 | 451430    | 1923.A20.gz43_252919 |
| M00042352C:G01 | ES 193 | 451302    | 1923.A23.gz43_252967 |
| M00042352D:A11 | ES 193 | 450902    | 1923.A24.gz43_252983 |
| M00042352D:F11 | ES 193 | 498504    | 1923.B01.gz43_252616 |
| M00042353B:A11 | ES 193 | 493575    | 1923.B05.gz43_252680 |
| M00042353B:B02 | ES 193 | 494378    | 1923.B06.gz43_252696 |
| M00042353D:B08 | ES 193 | 494393    | 1923.B13.gz43_252808 |
| M00042353D:C06 | ES 193 | 451043    | 1923.B14.gz43_252824 |
| M00042354B:A07 | ES 193 | 450823    | 1923.B17.gz43_252872 |
| M00042354C:F04 | ES 193 | 451126    | 1923.B19.gz43_252904 |
| M00042355A:A12 | ES 193 | 494133    | 1923.B22.gz43_252952 |
| M00042355A:C03 | ES 193 | 451126    | 1923.B23.gz43_252968 |
| M00042355A:H09 | ES 193 | 424723    | 1923.C01.gz43_252617 |
| M00042355B:A05 | ES 193 | 450875    | 1923.C02.gz43_252633 |
| M00042355B:B07 | ES 193 | 451009    | 1923.C03.gz43_252649 |
| M00042355B:E10 | ES 193 | 497400    | 1923.C04.gz43_252665 |
| M00042355C:F02 | ES 193 | 451383    | 1923.C05.gz43_252681 |
| M00042355C:G09 | ES 193 | 451470    | 1923.C07.gz43_252713 |
| M00042442A:A12 | ES 193 | 494130    | 1923.C23.gz43_252969 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042442A:G04 | ES 193 | 499178    | 1923.C24.gz43_252985 |
| M00042442B:A07 | ES 193 | 448936    | 1923.D02.gz43_252634 |
| M00042443B:D03 | ES 193 | 451176    | 1923.D11.gz43_252778 |
| M00042443D:E01 | ES 193 | 497101    | 1923.D15.gz43_252842 |
| M00042444A:C10 | ES 193 | 446263    | 1923.D17.gz43_252874 |
| M00042444A:D04 | ES 193 | 451212    | 1923.D18.gz43_252890 |
| M00042444A:H06 | ES 193 | 499779    | 1923.D19.gz43_252906 |
| M00042444C:E02 | ES 193 | 451124    | 1923.E01.gz43_252619 |
| M00042445A:B04 | ES 193 | 487745    | 1923.E06.gz43_252699 |
| M00042445C:A08 | ES 193 | 451544    | 1923.E10.gz43_252763 |
| M00042446B:G02 | ES 193 | 450507    | 1923.E19.gz43_252907 |
| M00042446D:F04 | ES 193 | 450507    | 1923.E24.gz43_252987 |
| M00042447C:H10 | ES 193 | 448663    | 1923.F06.gz43_252700 |
| M00042447D:E04 | ES 193 | 450302    | 1923.F08.gz43_252732 |
| M00042447D:G10 | ES 193 | 492110    | 1923.F09.gz43_252748 |
| M00042448B:B02 | ES 193 | 450926    | 1923.F12.gz43_252796 |
| M00042448B:C04 | ES 193 | 451049    | 1923.F13.gz43_252812 |
| M00042448C:B07 | ES 193 | 494423    | 1923.F18.gz43_252892 |
| M00042448C:C09 | ES 193 | 451054    | 1923.F20.gz43_252924 |
| M00042449A:H10 | ES 193 | 448556    | 1923.F24.gz43_252988 |
| M00042449C:D10 | ES 193 | 450219    | 1923.G02.gz43_252637 |
| M00042449D:C06 | ES 193 | 452094    | 1923.G04.gz43_252669 |
| M00042449D:H11 | ES 193 | 450765    | 1923.G06.gz43_252701 |
| M00042450A:B01 | ES 193 | 450912    | 1923.G07.gz43_252717 |
| M00042450A:D02 | ES 193 | 495941    | 1923.G09.gz43_252749 |
| M00042450C:B09 | ES 193 | 494362    | 1923.G18.gz43_252893 |
| M00042451D:H10 | ES 193 | 451618    | 1923.H04.gz43_252670 |
| M00042452C:A09 | ES 193 | 486912    | 1923.H10.gz43_252766 |
| M00042452C:C10 | ES 193 | 449974    | 1923.H11.gz43_252782 |
| M00042452D:C04 | ES 193 | 488680    | 1923.H15.gz43_252846 |
| M00042452D:G06 | ES 193 | 492094    | 1923.H17.gz43_252878 |
| M00042453A:D12 | ES 193 | 450166    | 1923.H20.gz43_252926 |
| M00042453C:D12 | ES 193 | 451518    | 1923.I03.gz43_252655 |
| M00042454A:F02 | ES 193 | 450400    | 1923.I12.gz43_252799 |
| M00042454D:H10 | ES 193 | 450723    | 1923.I19.gz43_252911 |
| M00042455A:C06 | ES 193 | 488859    | 1923.I20.gz43_252927 |
| M00042455A:G12 | ES 193 | 492304    | 1923.I22.gz43_252959 |
| M00042455B:D05 | ES 193 | 454575    | 1923.I24.gz43_252991 |
| M00042455B:G09 | ES 193 | 492292    | 1923.J02.gz43_252640 |
| M00042455C:D11 | ES 193 | 450255    | 1923.J03.gz43_252656 |
| M00042455C:E04 | ES 193 | 490890    | 1923.J04.gz43_252672 |
| M00042455D:H08 | ES 193 | 446621    | 1923.J09.gz43_252752 |
| M00042456A:C08 | ES 193 | 456492    | 1923.J10.gz43_252768 |
| M00042456A:F08 | ES 193 | 450425    | 1923.J12.gz43_252800 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042456C:H07 | ES 193 | 492981    | 1923.J19.gz43_252912 |
| M00042456D:B06 | ES 193 | 453667    | 1923.J20.gz43_252928 |
| M00042456D:D07 | ES 193 | 100821    | 1923.J22.gz43_252960 |
| M00042457D:D02 | ES 193 | 489426    | 1923.K07.gz43_252721 |
| M00042458B:B08 | ES 193 | 59512     | 1923.K11.gz43_252785 |
| M00042458B:G05 | ES 193 | 558729    | 1923.K13.gz43_252817 |
| M00042458C:C07 | ES 193 | 562353    | 1923.K14.gz43_252833 |
| M00042458C:D08 | ES 193 | 395968    | 1923.K16.gz43_252865 |
| M00042458C:E06 | ES 193 | 552581    | 1923.K17.gz43_252881 |
| M00042458D:E06 | ES 193 | 562588    | 1923.K20.gz43_252929 |
| M00042459A:E04 | ES 193 | 562587    | 1923.K23.gz43_252977 |
| M00042459B:F03 | ES 193 | 556916    | 1923.L05.gz43_252690 |
| M00042459B:F12 | ES 193 | 468729    | 1923.L06.gz43_252706 |
| M00042459C:B11 | ES 193 | 562274    | 1923.L09.gz43_252754 |
| M00042459C:E06 | ES 193 | 562627    | 1923.L12.gz43_252802 |
| M00042459C:G02 | ES 193 | 526733    | 1923.L13.gz43_252818 |
| M00042459D:B07 | ES 193 | 552236    | 1923.L15.gz43_252850 |
| M00042459D:E03 | ES 193 | 560420    | 1923.L18.gz43_252898 |
| M00042459D:G04 | ES 193 | 527679    | 1923.L20.gz43_252930 |
| M00042460B:C06 | ES 193 | 374282    | 1923.L24.gz43_252994 |
| M00042460B:D10 | ES 193 | 556804    | 1923.M03.gz43_252659 |
| M00042460B:G12 | ES 193 | 559575    | 1923.M08.gz43_252739 |
| M00042460C:A02 | ES 193 | 550362    | 1923.M11.gz43_252787 |
| M00042460C:B02 | ES 193 | 452232    | 1923.M14.gz43_252835 |
| M00042460C:G08 | ES 193 | 562603    | 1923.M22.gz43_252963 |
| M00042460C:H10 | ES 193 | 562543    | 1923.M23.gz43_252979 |
| M00042460D:H06 | ES 193 | 551755    | 1923.N05.gz43_252692 |
| M00042516A:A06 | ES 193 | 455439    | 1923.N08.gz43_252740 |
| M00042516A:A10 | ES 193 | 562115    | 1923.N09.gz43_252756 |
| M00042516A:C08 | ES 193 | 562060    | 1923.N10.gz43_252772 |
| M00042516B:E03 | ES 193 | 558559    | 1923.N13.gz43_252820 |
| M00042516C:C04 | ES 193 | 562399    | 1923.N18.gz43_252900 |
| M00042516D:B11 | ES 193 | 562275    | 1923.N22.gz43_252964 |
| M00042516D:C01 | ES 193 | 562398    | 1923.N23.gz43_252980 |
| M00042516D:H08 | ES 193 | 553312    | 1923.O01.gz43_252629 |
| M00042516D:H09 | ES 193 | 638444    | 1923.O02.gz43_252645 |
| M00042517C:B04 | ES 193 | 495074    | 1923.O05.gz43_252693 |
| M00042517D:A12 | ES 193 | 494300    | 1923.O09.gz43_252757 |
| M00042517D:G04 | ES 193 | 211273    | 1923.O11.gz43_252789 |
| M00042518D:A08 | ES 193 | 487522    | 1923.O18.gz43_252901 |
| M00042519D:F09 | ES 193 | 456024    | 1923.P02.gz43_252646 |
| M00042519D:H07 | ES 193 | 492982    | 1923.P04.gz43_252678 |
| M00042520A:F09 | ES 193 | 452833    | 1923.P10.gz43_252774 |
| M00042520C:E12 | ES 193 | 449104    | 1923.P16.gz43_252870 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043296A:E08 | ES 193 | 497517    | 1923.P23.gz43_252982 |
| M00043301D:B12 | ES 193 | 450999    | 1924.C17.gz43_245558 |
| M00043303B:E11 | ES 193 | 450349    | 1924.D15.gz43_245527 |
| M00043304B:A10 | ES 193 | 450805    | 1924.E04.gz43_245352 |
| M00043304C:E01 | ES 193 | 496957    | 1924.E09.gz43_245432 |
| M00043305A:H06 | ES 193 | 204862    | 1924.E13.gz43_245496 |
| M00043306B:A09 | ES 193 | 493746    | 1924.E24.gz43_245672 |
| M00043307B:F11 | ES 193 | 498242    | 1924.F18.gz43_245577 |
| M00043308A:D09 | ES 193 | 496752    | 1924.G03.gz43_245338 |
| M00043308A:F06 | ES 193 | 451456    | 1924.G04.gz43_245354 |
| M00043309A:H06 | ES 193 | 499693    | 1924.G17.gz43_245562 |
| M00043310A:F01 | ES 193 | 498509    | 1924.H03.gz43_245339 |
| M00043310C:B04 | ES 193 | 495105    | 1924.H08.gz43_245419 |
| M00043311B:H08 | ES 193 | 499700    | 1924.H18.gz43_245579 |
| M00043312B:A10 | ES 193 | 494325    | 1924.H24.gz43_245675 |
| M00043312D:A02 | ES 193 | 494306    | 1924.I10.gz43_245452 |
| M00043313D:B04 | ES 193 | 492544    | 1924.J11.gz43_245469 |
| M00043315C:D05 | ES 193 | 495951    | 1924.K14.gz43_245518 |
| M00043316C:F06 | ES 193 | 498951    | 1924.L15.gz43_245535 |
| M00043316D:F04 | ES 193 | 479604    | 1924.L19.gz43_245599 |
| M00043316D:F09 | ES 193 | 553779    | 1924.L21.gz43_245631 |
| M00043317B:B12 | ES 193 | 494625    | 1924.M04.gz43_245360 |
| M00043317D:C02 | ES 193 | 451081    | 1924.M11.gz43_245472 |
| M00043318A:G05 | ES 193 | 454815    | 1924.M17.gz43_245568 |
| M00043319A:D01 | ES 193 | 562516    | 1924.N19.gz43_245601 |
| M00043321B:E05 | ES 193 | 490401    | 1924.P05.gz43_245379 |
| M00043322C:F07 | ES 193 | 446732    | 1924.P23.gz43_245667 |
| M00043324D:D05 | ES 193 | 451245    | 1933.A19.gz43_245972 |
| M00043326A:H06 | ES 193 | 500040    | 1933.B12.gz43_245861 |
| M00043328A:E12 | ES 193 | 496909    | 1933.C10.gz43_245830 |
| M00043329B:H07 | ES 193 | 492779    | 1933.C17.gz43_245942 |
| M00043329C:D12 | ES 193 | 453068    | 1933.C18.gz43_245958 |
| M00043330D:G05 | ES 193 | 412621    | 1933.D06.gz43_245767 |
| M00043331C:G01 | ES 193 | 491933    | 1933.D10.gz43_245831 |
| M00043332A:D06 | ES 193 | 454873    | 1933.D15.gz43_245911 |
| M00043332A:E05 | ES 193 | 490550    | 1933.D16.gz43_245927 |
| M00043334A:F10 | ES 193 | 491212    | 1933.E07.gz43_245784 |
| M00043335A:D04 | ES 193 | 450252    | 1933.E21.gz43_246008 |
| M00043335D:E02 | ES 193 | 450283    | 1933.F05.gz43_245753 |
| M00043336A:D01 | ES 193 | 496678    | 1933.F08.gz43_245801 |
| M00043336C:A04 | ES 193 | 450804    | 1933.F18.gz43_245961 |
| M00043337A:C12 | ES 193 | 495610    | 1933.G03.gz43_245722 |
| M00043340A:B05 | ES 193 | 494973    | 1933.H02.gz43_245707 |
| M00043340B:B04 | ES 193 | 453078    | 1933.H03.gz43_245723 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043340D:C03 | ES 193 | 447057    | 1933.H09.gz43_245819 |
| M00043342B:H07 | ES 193 | 450727    | 1933.I02.gz43_245708 |
| M00043342C:G02 | ES 193 | 492629    | 1933.I06.gz43_245772 |
| M00043342D:D09 | ES 193 | 128697    | 1933.I09.gz43_245820 |
| M00043343B:B10 | ES 193 | 451307    | 1933.I15.gz43_245916 |
| M00043343D:H03 | ES 193 | 492887    | 1933.J04.gz43_245741 |
| M00043344C:C11 | ES 193 | 450027    | 1933.J15.gz43_245917 |
| M00043346D:E10 | ES 193 | 449299    | 1933.K07.gz43_245790 |
| M00043348A:D02 | ES 193 | 450129    | 1933.K16.gz43_245934 |
| M00043349A:C08 | ES 193 | 448927    | 1933.L01.gz43_245695 |
| M00043351C:A07 | ES 193 | 494271    | 1933.M05.gz43_245760 |
| M00043353D:E12 | ES 193 | 496870    | 1933.N10.gz43_245841 |
| M00043354A:C12 | ES 193 | 529733    | 1933.N13.gz43_245889 |
| M00043354A:E06 | ES 193 | 561712    | 1933.N14.gz43_245905 |
| M00043354B:C04 | ES 193 | 561480    | 1933.N18.gz43_245969 |
| M00043354B:F12 | ES 193 | 561834    | 1933.N20.gz43_246001 |
| M00043354D:C01 | ES 193 | 448110    | 1933.O05.gz43_245762 |
| M00043354D:G01 | ES 193 | 515328    | 1933.O10.gz43_245842 |
| M00043354D:G02 | ES 193 | 552445    | 1933.O11.gz43_245858 |
| M00043354D:H08 | ES 193 | 553594    | 1933.O12.gz43_245874 |
| M00043355A:D01 | ES 193 | 561593    | 1933.O18.gz43_245970 |
| M00043355B:B01 | ES 193 | 552687    | 1933.O23.gz43_246050 |
| M00043355B:D12 | ES 193 | 517346    | 1933.O24.gz43_246066 |
| M00043355C:G12 | ES 193 | 487106    | 1933.P08.gz43_245811 |
| M00043356B:E12 | ES 193 | 452586    | 1934.A03.gz43_253031 |
| M00043356C:F03 | ES 193 | 448230    | 1934.A06.gz43_253079 |
| M00043356C:H07 | ES 193 | 447429    | 1934.A07.gz43_253095 |
| M00043357A:G04 | ES 193 | 450583    | 1934.A11.gz43_253159 |
| M00043357B:B02 | ES 193 | 487893    | 1934.A12.gz43_253175 |
| M00043357B:D01 | ES 193 | 450189    | 1934.A13.gz43_253191 |
| M00043358A:D02 | ES 193 | 450242    | 1934.A21.gz43_253319 |
| M00043358B:D06 | ES 193 | 450122    | 1934.A23.gz43_253351 |
| M00043358C:F07 | ES 193 | 449061    | 1934.B04.gz43_253048 |
| M00043359B:A04 | ES 193 | 449795    | 1934.B09.gz43_253128 |
| M00043359B:D06 | ES 193 | 450193    | 1934.B11.gz43_253160 |
| M00043359C:C06 | ES 193 | 449994    | 1934.B14.gz43_253208 |
| M00043360C:E07 | ES 193 | 452719    | 1934.C01.gz43_253001 |
|                |        |           |                      |
| M00043360C:F11 | ES 194 | 491177    | 1934.C03.gz43_253033 |
| M00043360D:D01 | ES 194 | 489368    | 1934.C05.gz43_253065 |
| M00043361B:F02 | ES 194 | 491402    | 1934.C08.gz43_253113 |
| M00043361D:A02 | ES 194 | 450080    | 1934.C10.gz43_253145 |
| M00043362C:E02 | ES 194 | 490846    | 1934.C18.gz43_253273 |
| M00043363A:G03 | ES 194 | 492022    | 1934.D02.gz43_253018 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043363B:A11 | ES 194 | 450756    | 1934.D04.gz43_253050 |
| M00043363D:F07 | ES 194 | 491507    | 1934.D12.gz43_253178 |
| M00043364B:H10 | ES 194 | 447355    | 1934.D21.gz43_253322 |
| M00043364D:H11 | ES 194 | 450756    | 1934.E05.gz43_253067 |
| M00043365A:C06 | ES 194 | 449956    | 1934.E08.gz43_253115 |
| M00043365B:A10 | ES 194 | 486833    | 1934.E11.gz43_253163 |
| M00043365B:C08 | ES 194 | 488613    | 1934.E13.gz43_253195 |
| M00043365C:A09 | ES 194 | 449780    | 1934.E16.gz43_253243 |
| M00043365C:F06 | ES 194 | 491240    | 1934.E19.gz43_253291 |
| M00043366A:B12 | ES 194 | 488023    | 1934.E24.gz43_253371 |
| M00043366D:B07 | ES 194 | 488310    | 1934.F09.gz43_253132 |
| M00043367C:D10 | ES 194 | 450147    | 1934.F14.gz43_253212 |
| M00043368A:F03 | ES 194 | 491492    | 1934.F16.gz43_253244 |
| M00043369D:B01 | ES 194 | 449842    | 1934.G02.gz43_253021 |
| M00043369D:G10 | ES 194 | 450551    | 1934.G07.gz43_253101 |
| M00043370A:C08 | ES 194 | 449959    | 1934.G08.gz43_253117 |
| M00043370B:D08 | ES 194 | 450207    | 1934.G14.gz43_253213 |
| M00043371A:D06 | ES 194 | 490060    | 1934.G19.gz43_253293 |
| M00043371B:C10 | ES 194 | 450080    | 1934.G22.gz43_253341 |
| M00043371C:B02 | ES 194 | 449908    | 1934.G23.gz43_253357 |
| M00043372B:A07 | ES 194 | 43013     | 1934.H05.gz43_253070 |
| M00043372B:B01 | ES 194 | 455707    | 1934.H06.gz43_253086 |
| M00043373A:G11 | ES 194 | 452710    | 1934.H19.gz43_253294 |
| M00043373B:G12 | ES 194 | 450658    | 1934.H24.gz43_253374 |
| M00043373D:G04 | ES 194 | 456492    | 1934.I04.gz43_253055 |
| M00043374A:E05 | ES 194 | 560213    | 1934.I08.gz43_253119 |
| M00043374A:G04 | ES 194 | 510272    | 1934.I10.gz43_253151 |
| M00043374D:D07 | ES 194 | 631526    | 1934.I15.gz43_253231 |
| M00043374D:H09 | ES 194 | 515423    | 1934.I17.gz43_253263 |
| M00043375A:E01 | ES 194 | 451292    | 1934.I20.gz43_253311 |
| M00043375A:E02 | ES 194 | 451294    | 1934.I21.gz43_253327 |
| M00043375B:A04 | ES 194 | 456103    | 1934.I24.gz43_253375 |
| M00043376B:C03 | ES 194 | 451144    | 1934.J07.gz43_253104 |
| M00043376B:F06 | ES 194 | 450482    | 1934.J08.gz43_253120 |
| M00043376D:A04 | ES 194 | 493622    | 1934.J11.gz43_253168 |
| M00043376D:A12 | ES 194 | 233814    | 1934.J12.gz43_253184 |
| M00043376D:D12 | ES 194 | 451185    | 1934.J14.gz43_253216 |
| M00043377C:A11 | ES 194 | 449959    | 1934.J20.gz43_253312 |
| M00043377D:E01 | ES 194 | 451361    | 1934.J22.gz43_253344 |
| M00043378B:B05 | ES 194 | 494450    | 1934.J24.gz43_253376 |
| M00043378D:D12 | ES 194 | 496084    | 1934.K05.gz43_253073 |
| M00043379C:B09 | ES 194 | 451011    | 1934.K13.gz43_253201 |
| M00043379D:A05 | ES 194 | 494099    | 1934.K16.gz43_253249 |
| M00043380D:E10 | ES 194 | 450193    | 1934.L05.gz43_253074 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043380D:E11 | ES 194 | 451326    | 1934.L06.gz43_253090 |
| M00043381B:E10 | ES 194 | 551380    | 1934.L14.gz43_253218 |
| M00043381C:D08 | ES 194 | 561641    | 1934.L16.gz43_253250 |
| M00043381C:E10 | ES 194 | 556511    | 1934.L18.gz43_253282 |
| M00043381D:F09 | ES 194 | 467035    | 1934.L24.gz43_253378 |
| M00043382C:D07 | ES 194 | 496586    | 1934.M03.gz43_253043 |
| M00043382C:G09 | ES 194 | 499240    | 1934.M05.gz43_253075 |
| M00043383B:F12 | ES 194 | 456367    | 1934.M11.gz43_253171 |
| M00043383D:C07 | ES 194 | 495143    | 1934.M14.gz43_253219 |
| M00043383D:G07 | ES 194 | 451467    | 1934.M15.gz43_253235 |
| M00043384B:A04 | ES 194 | 487437    | 1934.M18.gz43_253283 |
| M00043384C:A07 | ES 194 | 487448    | 1934.M20.gz43_253315 |
| M00043384C:C02 | ES 194 | 489207    | 1934.M22.gz43_253347 |
| M00043384C:G01 | ES 194 | 492627    | 1934.M24.gz43_253379 |
| M00043384D:D05 | ES 194 | 489506    | 1934.N02.gz43_253028 |
| M00043385A:E01 | ES 194 | 496760    | 1934.N06.gz43_253092 |
| M00043385A:G12 | ES 194 | 448448    | 1934.N08.gz43_253124 |
| M00043385C:D06 | ES 194 | 496234    | 1934.N11.gz43_253172 |
| M00043386A:A11 | ES 194 | 450819    | 1934.N16.gz43_253252 |
| M00043387A:E02 | ES 194 | 490393    | 1934.O03.gz43_253045 |
| M00043387A:E03 | ES 194 | 490395    | 1934.O04.gz43_253061 |
| M00043387B:A03 | ES 194 | 486856    | 1934.O09.gz43_253141 |
| M00043387C:A11 | ES 194 | 487183    | 1934.O14.gz43_253221 |
| M00043387C:G08 | ES 194 | 455460    | 1934.O18.gz43_253285 |
| M00043387D:A02 | ES 194 | 449802    | 1934.O21.gz43_253333 |
| M00043387D:B02 | ES 194 | 488030    | 1934.O22.gz43_253349 |
| M00043387D:D06 | ES 194 | 450211    | 1934.O23.gz43_253365 |
| M00043388A:D05 | ES 194 | 453893    | 1934.P02.gz43_253030 |
| M00043388B:C02 | ES 194 | 489275    | 1934.P04.gz43_253062 |
| M00043389D:B10 | ES 194 | 488349    | 1934.P16.gz43_253254 |
| M00043390B:C04 | ES 194 | 449978    | 1934.P20.gz43_253318 |
| M00043391D:D05 | ES 194 | 217042    | 1935.A19.gz43_246512 |
| M00043392C:F02 | ES 194 | 491448    | 1935.B05.gz43_246289 |
| M00043397B:H07 | ES 194 | 335078    | 1935.D06.gz43_246307 |
| M00043397C:G02 | ES 194 | 450623    | 1935.D08.gz43_246339 |
| M00043401A:E09 | ES 194 | 490805    | 1935.E18.gz43_246500 |
| M00043402C:F12 | ES 194 | 456213    | 1935.F12.gz43_246405 |
| M00043403B:A12 | ES 194 | 450335    | 1935.F18.gz43_246501 |
| M00043406D:C04 | ES 194 | 448924    | 1935.H08.gz43_246343 |
| M00043407C:H08 | ES 194 | 451456    | 1935.H15.gz43_246455 |
| M00043407D:G06 | ES 194 | 498629    | 1935.H17.gz43_246487 |
| M00043409C:C07 | ES 194 | 402070    | 1935.I07.gz43_246328 |
| M00043410C:C05 | ES 194 | 451781    | 1935.I17.gz43_246488 |
| M00043501A:D07 | ES 194 | 553890    | 1935.K06.gz43_246314 |





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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054533C:B04 | ES 194 | 556940    | 1946.H01.gz43_249313 |
| M00054533C:E07 | ES 194 | 466020    | 1946.H05.gz43_249377 |
| M00054534A:B06 | ES 194 | 498433    | 1946.H15.gz43_249537 |
| M00054534D:D02 | ES 194 | 556216    | 1946.I06.gz43_249394 |
| M00054535A:G03 | ES 194 | 553338    | 1946.I14.gz43_249522 |
| M00054535B:H08 | ES 194 | 560205    | 1946.I22.gz43_249650 |
| M00054536B:A03 | ES 194 | 550018    | 1946.J07.gz43_249411 |
| M00054536B:D02 | ES 194 | 550370    | 1946.J10.gz43_249459 |
| M00054536B:F08 | ES 194 | 550730    | 1946.J11.gz43_249475 |
| M00054536C:B11 | ES 194 | 555019    | 1946.J15.gz43_249539 |
|                |        |           |                      |
| M00054536C:D12 | ES 195 | 82864     | 1946.J17.gz43_249571 |
| M00054537B:H03 | ES 195 | 451778    | 1946.K02.gz43_249332 |
| M00054537C:B03 | ES 195 | 51103     | 1946.K06.gz43_249396 |
| M00054538A:E10 | ES 195 | 455821    | 1946.K16.gz43_249556 |
| M00054538B:B05 | ES 195 | 550172    | 1946.K18.gz43_249588 |
| M00054538D:F05 | ES 195 | 557339    | 1946.L07.gz43_249413 |
| M00054538D:G12 | ES 195 | 550830    | 1946.L11.gz43_249477 |
| M00054538D:H11 | ES 195 | 560014    | 1946.L13.gz43_249509 |
| M00054539B:D06 | ES 195 | 560519    | 1946.L17.gz43_249573 |
| M00054539B:G03 | ES 195 | 549734    | 1946.L19.gz43_249605 |
| M00054540A:H07 | ES 195 | 464154    | 1946.M10.gz43_249462 |
| M00054541B:A09 | ES 195 | 549233    | 1946.M22.gz43_249654 |
| M00054541C:C10 | ES 195 | 493575    | 1946.N03.gz43_249351 |
| M00054541C:F11 | ES 195 | 481594    | 1946.N09.gz43_249447 |
| M00054542B:B01 | ES 195 | 409262    | 1946.N17.gz43_249575 |
| M00054542C:B12 | ES 195 | 558024    | 1946.N21.gz43_249639 |
| M00054543B:E06 | ES 195 | 552638    | 1946.O12.gz43_249496 |
| M00054543C:F01 | ES 195 | 552753    | 1946.O18.gz43_249592 |
| M00054543D:G08 | ES 195 | 549131    | 1946.P01.gz43_249321 |
| M00054544B:E03 | ES 195 | 550618    | 1946.P09.gz43_249449 |
| M00054544C:F04 | ES 195 | 560717    | 1946.P17.gz43_249577 |
| M00054545C:B09 | ES 195 | 555502    | 1947.A10.gz43_253539 |
| M00054545D:E04 | ES 195 | 561406    | 1947.A14.gz43_253603 |
| M00054553D:E09 | ES 195 | 515707    | 1947.G22.gz43_253737 |
| M00054555A:H09 | ES 195 | 550952    | 1947.I06.gz43_253483 |
| M00054555D:C03 | ES 195 | 550246    | 1947.J01.gz43_253404 |
| M00054566D:G08 | ES 195 | 496586    | 1947.P21.gz43_253730 |
| M00054567C:B03 | ES 195 | 556065    | 1948.A04.gz43_249738 |
| M00054567C:D09 | ES 195 | 550403    | 1948.A07.gz43_249786 |
| M00054568A:G02 | ES 195 | 549716    | 1948.A14.gz43_249898 |
| M00054568A:H03 | ES 195 | 549858    | 1948.A16.gz43_249930 |
| M00054568B:A07 | ES 195 | 554793    | 1948.A17.gz43_249946 |
| M00054568C:D06 | ES 195 | 450963    | 1948.A21.gz43_250010 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054568C:G12 | ES 195 | 557656    | 1948.A23.gz43_250042 |
| M00054569D:E01 | ES 195 | 468613    | 1948.C02.gz43_249708 |
| M00054570A:F02 | ES 195 | 549597    | 1948.C08.gz43_249804 |
| M00054571A:B10 | ES 195 | 451049    | 1948.C21.gz43_250012 |
| M00054572C:B12 | ES 195 | 562805    | 1948.E07.gz43_249790 |
| M00054572C:E09 | ES 195 | 561876    | 1948.E11.gz43_249854 |
| M00054572C:G05 | ES 195 | 550035    | 1948.E13.gz43_249886 |
| M00054574C:B11 | ES 195 | 562725    | 1948.G01.gz43_249696 |
| M00054574D:F11 | ES 195 | 559300    | 1948.G10.gz43_249840 |
| M00054575A:B06 | ES 195 | 560080    | 1948.G12.gz43_249872 |
| M00054575B:A07 | ES 195 | 562469    | 1948.G16.gz43_249936 |
| M00054576D:C07 | ES 195 | 378610    | 1948.I02.gz43_249714 |
| M00054577B:A09 | ES 195 | 558729    | 1948.I13.gz43_249890 |
| M00054577B:F01 | ES 195 | 509202    | 1948.I19.gz43_249986 |
| M00054579A:G10 | ES 195 | 550804    | 1948.K03.gz43_249732 |
| M00054579B:C11 | ES 195 | 454205    | 1948.K07.gz43_249796 |
| M00054579B:D10 | ES 195 | 553749    | 1948.K08.gz43_249812 |
| M00054579C:A10 | ES 195 | 552907    | 1948.K11.gz43_249860 |
| M00054579D:D08 | ES 195 | 313600    | 1948.K18.gz43_249972 |
| M00054580A:B11 | ES 195 | 528404    | 1948.K21.gz43_250020 |
| M00054580A:C10 | ES 195 | 492139    | 1948.K22.gz43_250036 |
| M00054580A:D03 | ES 195 | 550318    | 1948.K23.gz43_250052 |
| M00054580A:D04 | ES 195 | 570248    | 1948.K24.gz43_250068 |
| M00054581B:A01 | ES 195 | 559752    | 1948.M02.gz43_249718 |
| M00054581B:D03 | ES 195 | 550397    | 1948.M04.gz43_249750 |
| M00054581B:G10 | ES 195 | 550874    | 1948.M05.gz43_249766 |
| M00054581D:C12 | ES 195 | 555000    | 1948.M10.gz43_249846 |
| M00054581D:D01 | ES 195 | 556488    | 1948.M11.gz43_249862 |
| M00054581D:E04 | ES 195 | 556336    | 1948.M12.gz43_249878 |
| M00054581D:G02 | ES 195 | 550811    | 1948.M13.gz43_249894 |
| M00054582A:A05 | ES 195 | 568467    | 1948.M14.gz43_249910 |
| M00054582A:A07 | ES 195 | 549994    | 1948.M15.gz43_249926 |
| M00054583A:B04 | ES 195 | 550106    | 1948.N13.gz43_249895 |
| M00054583A:F05 | ES 195 | 550694    | 1948.N14.gz43_249911 |
| M00054583D:E04 | ES 195 | 394567    | 1948.O01.gz43_249704 |
| M00054584A:A07 | ES 195 | 549956    | 1948.O03.gz43_249736 |
| M00054584A:B03 | ES 195 | 533812    | 1948.O05.gz43_249768 |
| M00054584B:A03 | ES 195 | 554887    | 1948.O10.gz43_249848 |
| M00054584B:G03 | ES 195 | 572249    | 1948.O13.gz43_249896 |
| M00054584D:C01 | ES 195 | 466020    | 1948.O17.gz43_249960 |
| M00054585A:E07 | ES 195 | 160320    | 1948.O21.gz43_250024 |
| M00054586A:F05 | ES 195 | 550662    | 1948.P19.gz43_249993 |
| M00054586C:H02 | ES 195 | 560751    | 1957.A05.gz43_250138 |
| M00054586D:A03 | ES 195 | 559857    | 1957.A06.gz43_250154 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054586D:G01 | ES 195 | 559419    | 1957.A09.gz43_250202 |
| M00054587A:A08 | ES 195 | 558413    | 1957.A13.gz43_250266 |
| M00054587A:F06 | ES 195 | 471181    | 1957.A16.gz43_250314 |
| M00054587A:F09 | ES 195 | 452506    | 1957.A18.gz43_250346 |
| M00054587B:F06 | ES 195 | 562174    | 1957.A23.gz43_250426 |
| M00054587C:G02 | ES 195 | 535129    | 1957.B03.gz43_250107 |
| M00054587D:D04 | ES 195 | 550322    | 1957.B05.gz43_250139 |
| M00054588A:G08 | ES 195 | 550855    | 1957.B11.gz43_250235 |
| M00054588B:B12 | ES 195 | 553331    | 1957.B13.gz43_250267 |
| M00054588C:F04 | ES 195 | 550217    | 1957.B19.gz43_250363 |
| M00054589A:D09 | ES 195 | 555920    | 1957.C04.gz43_250124 |
| M00054589A:E05 | ES 195 | 477097    | 1957.C05.gz43_250140 |
| M00054589B:A07 | ES 195 | 446164    | 1957.C06.gz43_250156 |
| M00054589B:F05 | ES 195 | 551463    | 1957.C10.gz43_250220 |
| M00054589B:G10 | ES 195 | 43656     | 1957.C13.gz43_250268 |
| M00054589C:G11 | ES 195 | 427723    | 1957.C18.gz43_250348 |
| M00054589D:C06 | ES 195 | 556376    | 1957.C20.gz43_250380 |
| M00054590A:A01 | ES 195 | 447311    | 1957.C23.gz43_250428 |
| M00054590A:C10 | ES 195 | 553755    | 1957.D02.gz43_250093 |
| M00054590A:E02 | ES 195 | 550594    | 1957.D03.gz43_250109 |
| M00054590B:B11 | ES 195 | 550088    | 1957.D06.gz43_250157 |
| M00054590C:A03 | ES 195 | 498827    | 1957.D08.gz43_250189 |
| M00054590D:B01 | ES 195 | 550084    | 1957.D16.gz43_250317 |
| M00054590D:C12 | ES 195 | 551975    | 1957.D18.gz43_250349 |
| M00054591C:A01 | ES 195 | 550044    | 1957.E04.gz43_250126 |
| M00054591C:H09 | ES 195 | 554764    | 1957.E06.gz43_250158 |
| M00054591D:G11 | ES 195 | 550886    | 1957.E11.gz43_250238 |
| M00054592A:D09 | ES 195 | 550315    | 1957.E17.gz43_250334 |
| M00054592C:A05 | ES 195 | 549964    | 1957.E20.gz43_250382 |
| M00054593A:D01 | ES 195 | 547509    | 1957.F03.gz43_250111 |
| M00054593B:B03 | ES 195 | 473859    | 1957.F09.gz43_250207 |
| M00054593B:E03 | ES 195 | 557970    | 1957.F12.gz43_250255 |
| M00054593D:B11 | ES 195 | 550153    | 1957.F18.gz43_250351 |
| M00054594A:D04 | ES 195 | 561836    | 1957.G01.gz43_250080 |
| M00054594C:E06 | ES 195 | 498777    | 1957.G08.gz43_250192 |
| M00054595B:A11 | ES 195 | 161489    | 1957.G20.gz43_250384 |
| M00054595B:C12 | ES 195 | 560357    | 1957.G23.gz43_250432 |
| M00054595B:H09 | ES 195 | 485431    | 1957.H06.gz43_250161 |
| M00054595C:G06 | ES 195 | 549665    | 1957.H12.gz43_250257 |
| M00054595D:A10 | ES 195 | 485029    | 1957.H18.gz43_250353 |
| M00054596A:G11 | ES 195 | 549731    | 1957.H24.gz43_250449 |
| M00054596B:C01 | ES 195 | 447356    | 1957.I04.gz43_250130 |
| M00054596C:A06 | ES 195 | 451594    | 1957.I11.gz43_250242 |
| M00054596C:F09 | ES 195 | 549609    | 1957.I14.gz43_250290 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054596C:F10 | ES 195 | 455298    | 1957.I15.gz43_250306 |
| M00054596C:G09 | ES 195 | 561130    | 1957.I17.gz43_250338 |
| M00054597A:A07 | ES 195 | 467035    | 1957.I23.gz43_250434 |
| M00054597A:C11 | ES 195 | 558332    | 1957.J01.gz43_250083 |
| M00054597A:D08 | ES 195 | 558981    | 1957.J02.gz43_250099 |
| M00054597A:G08 | ES 195 | 549781    | 1957.J03.gz43_250115 |
| M00054597B:F09 | ES 195 | 493622    | 1957.J08.gz43_250195 |
| M00054597D:E12 | ES 195 | 461718    | 1957.J17.gz43_250339 |
| M00054597D:F08 | ES 195 | 449649    | 1957.J19.gz43_250371 |
| M00054599B:A12 | ES 195 | 446783    | 1957.K18.gz43_250356 |
| M00054599B:C06 | ES 195 | 549228    | 1957.K20.gz43_250388 |
| M00054599B:F09 | ES 195 | 549611    | 1957.K23.gz43_250436 |
| M00054599C:E05 | ES 195 | 561593    | 1957.L06.gz43_250165 |
| M00054599D:B07 | ES 195 | 559883    | 1957.L08.gz43_250197 |
| M00054600A:G12 | ES 195 | 559554    | 1957.L17.gz43_250341 |
| M00054600A:H03 | ES 195 | 549816    | 1957.L18.gz43_250357 |
| M00054600C:B10 | ES 195 | 459581    | 1957.L20.gz43_250389 |
| M00054600C:D03 | ES 195 | 554193    | 1957.L22.gz43_250421 |
| M00054600D:H07 | ES 195 | 554869    | 1957.M08.gz43_250198 |
| M00054601A:E08 | ES 195 | 555949    | 1957.M09.gz43_250214 |
| M00054601B:D08 | ES 195 | 446503    | 1957.M12.gz43_250262 |
| M00054602A:B03 | ES 195 | 550085    | 1957.M23.gz43_250438 |
| M00054602A:E06 | ES 195 | 416884    | 1957.N05.gz43_250151 |
| M00054602C:B06 | ES 195 | 547509    | 1957.N15.gz43_250311 |
| M00054602C:C12 | ES 195 | 487176    | 1957.N16.gz43_250327 |
| M00054602D:A06 | ES 195 | 562722    | 1957.N20.gz43_250391 |
| M00054603A:G06 | ES 195 | 552907    | 1957.O07.gz43_250184 |
| M00054603A:G12 | ES 195 | 552913    | 1957.O09.gz43_250216 |
| M00054603B:B04 | ES 195 | 526733    | 1957.O11.gz43_250248 |
| M00054603B:C09 | ES 195 | 447308    | 1957.O13.gz43_250280 |
| M00054603B:G08 | ES 195 | 356058    | 1957.O16.gz43_250328 |
| M00054603C:G09 | ES 195 | 408130    | 1957.O18.gz43_250360 |
| M00054603D:B02 | ES 195 | 552121    | 1957.O20.gz43_250392 |
| M00054604C:B05 | ES 195 | 562529    | 1957.P07.gz43_250185 |
| M00054604C:F03 | ES 195 | 549599    | 1957.P12.gz43_250265 |
| M00054604D:A04 | ES 195 | 563514    | 1957.P15.gz43_250313 |
| M00054605A:A03 | ES 195 | 558927    | 1957.P18.gz43_250361 |
| M00054605B:F10 | ES 195 | 460493    | 1957.P24.gz43_250457 |
| M00054605B:G01 | ES 195 | 549649    | 1958.A02.gz43_250474 |
| M00054605C:A04 | ES 195 | 548864    | 1958.A05.gz43_250522 |
| M00054605C:D03 | ES 195 | 188753    | 1958.A06.gz43_250538 |
| M00054605C:H02 | ES 195 | 549810    | 1958.A09.gz43_250586 |
| M00054606A:A03 | ES 195 | 449994    | 1958.A13.gz43_250650 |
| M00054606A:D02 | ES 195 | 562508    | 1958.A16.gz43_250698 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054606C:B06 | ES 195 | 549131    | 1958.A23.gz43_250810 |
| M00054606C:E04 | ES 195 | 549481    | 1958.B01.gz43_250459 |
| M00054606D:B05 | ES 195 | 557190    | 1958.B02.gz43_250475 |
| M00054607A:B06 | ES 195 | 560862    | 1958.B05.gz43_250523 |
| M00054607A:G02 | ES 195 | 552823    | 1958.B07.gz43_250555 |
| M00054608B:D08 | ES 195 | 490393    | 1958.B19.gz43_250747 |
| M00054608C:H04 | ES 195 | 549889    | 1958.B24.gz43_250827 |
| M00054609A:D01 | ES 195 | 423947    | 1958.C05.gz43_250524 |
| M00054609A:F01 | ES 195 | 561892    | 1958.C08.gz43_250572 |
| M00054609A:H04 | ES 195 | 549912    | 1958.C09.gz43_250588 |
| M00054609B:E01 | ES 195 | 556530    | 1958.C12.gz43_250636 |
| M00054609B:H11 | ES 195 | 507349    | 1958.C13.gz43_250652 |
| M00054609C:G06 | ES 195 | 549779    | 1958.C17.gz43_250716 |
| M00054609D:E12 | ES 195 | 490152    | 1958.C22.gz43_250796 |
| M00054609D:H06 | ES 195 | 549829    | 1958.C24.gz43_250828 |
| M00054610A:E05 | ES 195 | 558332    | 1958.D05.gz43_250525 |
| M00054611B:F12 | ES 195 | 549626    | 1958.E13.gz43_250654 |
| M00054611B:G09 | ES 195 | 478511    | 1958.E14.gz43_250670 |
| M00054611C:C02 | ES 195 | 561144    | 1958.E16.gz43_250702 |
| M00054611C:E01 | ES 195 | 555660    | 1958.E18.gz43_250734 |
| M00054612A:D12 | ES 195 | 549347    | 1958.F08.gz43_250575 |
| M00054612B:B11 | ES 195 | 549114    | 1958.F10.gz43_250607 |
| M00054612B:E02 | ES 195 | 488108    | 1958.F12.gz43_250639 |
| M00054612D:B12 | ES 195 | 552364    | 1958.F22.gz43_250799 |
| M00054613A:D07 | ES 195 | 550177    | 1958.G06.gz43_250544 |
| M00054613B:H04 | ES 195 | 550018    | 1958.G11.gz43_250624 |
| M00054613D:H09 | ES 195 | 553028    | 1958.G21.gz43_250784 |
|                |        |           |                      |
| M00054614A:G11 | ES 196 | 557559    | 1958.G24.gz43_250832 |
| M00054614B:E01 | ES 196 | 405042    | 1958.H01.gz43_250465 |
| M00054615B:E03 | ES 196 | 497477    | 1958.H16.gz43_250705 |
| M00054615C:D09 | ES 196 | 557947    | 1958.H23.gz43_250817 |
| M00054616A:H01 | ES 196 | 553758    | 1958.I15.gz43_250690 |
| M00054616A:H03 | ES 196 | 481360    | 1958.I16.gz43_250706 |
| M00054616D:C10 | ES 196 | 552418    | 1958.J01.gz43_250467 |
| M00054616D:G09 | ES 196 | 549739    | 1958.J03.gz43_250499 |
| M00054616D:H06 | ES 196 | 513115    | 1958.J05.gz43_250531 |
| M00054617A:C07 | ES 196 | 553453    | 1958.J08.gz43_250579 |
| M00054617B:A09 | ES 196 | 548965    | 1958.J10.gz43_250611 |
| M00054617B:C05 | ES 196 | 549233    | 1958.J12.gz43_250643 |
| M00054617B:D06 | ES 196 | 549388    | 1958.J13.gz43_250659 |
| M00054618B:B04 | ES 196 | 549122    | 1958.K06.gz43_250548 |
| M00054618C:H02 | ES 196 | 555371    | 1958.K14.gz43_250676 |
| M00054618D:D04 | ES 196 | 552437    | 1958.K16.gz43_250708 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054618D:E06 | ES 196 | 490890    | 1958.K19.gz43_250756 |
| M00054618D:E11 | ES 196 | 451009    | 1958.K20.gz43_250772 |
| M00054619A:C05 | ES 196 | 447913    | 1958.K24.gz43_250836 |
| M00054619C:F04 | ES 196 | 554036    | 1958.L09.gz43_250597 |
| M00054619D:C10 | ES 196 | 562749    | 1958.L12.gz43_250645 |
| M00054620A:C09 | ES 196 | 553204    | 1958.L15.gz43_250693 |
| M00054620B:B10 | ES 196 | 552194    | 1958.L20.gz43_250773 |
| M00054620C:C08 | ES 196 | 448276    | 1958.L22.gz43_250805 |
| M00054620C:C12 | ES 196 | 560491    | 1958.L23.gz43_250821 |
| M00054620D:D06 | ES 196 | 561116    | 1958.M03.gz43_250502 |
| M00054620D:D11 | ES 196 | 473111    | 1958.M04.gz43_250518 |
| M00054620D:F11 | ES 196 | 556896    | 1958.M06.gz43_250550 |
| M00054620D:G11 | ES 196 | 395411    | 1958.M07.gz43_250566 |
| M00054621B:A10 | ES 196 | 548859    | 1958.M13.gz43_250662 |
| M00054621C:G03 | ES 196 | 451025    | 1958.M20.gz43_250774 |
| M00054621D:A10 | ES 196 | 518049    | 1958.M24.gz43_250838 |
| M00054621D:C06 | ES 196 | 558642    | 1958.N01.gz43_250471 |
| M00054621D:D11 | ES 196 | 549320    | 1958.N02.gz43_250487 |
| M00054622A:D06 | ES 196 | 27480     | 1958.N07.gz43_250567 |
| M00054622A:H01 | ES 196 | 561068    | 1958.N08.gz43_250583 |
| M00054622B:F05 | ES 196 | 491644    | 1958.N10.gz43_250615 |
| M00054622B:H09 | ES 196 | 556308    | 1958.N12.gz43_250647 |
| M00054622D:C02 | ES 196 | 562932    | 1958.N18.gz43_250743 |
| M00054622D:D10 | ES 196 | 551463    | 1958.N20.gz43_250775 |
| M00054622D:F05 | ES 196 | 485504    | 1958.N21.gz43_250791 |
| M00054622D:G11 | ES 196 | 556835    | 1958.N22.gz43_250807 |
| M00054622D:H03 | ES 196 | 453864    | 1958.N23.gz43_250823 |
| M00054623B:B11 | ES 196 | 556424    | 1958.O06.gz43_250552 |
| M00054623C:E09 | ES 196 | 558175    | 1958.O09.gz43_250600 |
| M00054623D:C12 | ES 196 | 551305    | 1958.O12.gz43_250648 |
| M00054624A:B11 | ES 196 | 550164    | 1958.O16.gz43_250712 |
| M00054624B:G10 | ES 196 | 559938    | 1958.O21.gz43_250792 |
| M00054624D:B06 | ES 196 | 554810    | 1958.O23.gz43_250824 |
| M00054625A:D07 | ES 196 | 558103    | 1958.P04.gz43_250521 |
| M00054625A:E05 | ES 196 | 557199    | 1958.P05.gz43_250537 |
| M00054625B:B02 | ES 196 | 551250    | 1958.P07.gz43_250569 |
| M00054625D:F06 | ES 196 | 562712    | 1958.P21.gz43_250793 |
| M00054625D:H07 | ES 196 | 461734    | 1958.P22.gz43_250809 |
| M00054627A:B08 | ES 196 | 556790    | 1959.A20.gz43_254083 |
| M00054628C:G11 | ES 196 | 557559    | 1959.C14.gz43_253989 |
| M00054629C:G06 | ES 196 | 555923    | 1959.D08.gz43_253894 |
| M00054630A:D08 | ES 196 | 562541    | 1959.D17.gz43_254038 |
| M00054630B:A06 | ES 196 | 551975    | 1959.D19.gz43_254070 |
| M00054631D:C02 | ES 196 | 552092    | 1959.F03.gz43_253816 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054635B:G05 | ES 196 | 268197    | 1959.H16.gz43_254026 |
| M00054638D:F02 | ES 196 | 555949    | 1959.K24.gz43_254157 |
| M00054640B:C05 | ES 196 | 549210    | 1959.M04.gz43_253839 |
| M00054642D:F11 | ES 196 | 549516    | 1959.N22.gz43_254128 |
| M00054643B:G09 | ES 196 | 552618    | 1959.O10.gz43_253937 |
| M00054644B:F02 | ES 196 | 557345    | 1959.P08.gz43_253906 |
| M00054644D:F11 | ES 196 | 549624    | 1959.P20.gz43_254098 |
| M00054647D:H02 | ES 196 | 502683    | 1960.B23.gz43_254516 |
| M00054648C:H10 | ES 196 | 450867    | 1960.C12.gz43_254341 |
| M00054650A:B08 | ES 196 | 410667    | 1960.D12.gz43_254342 |
| M00054651D:D02 | ES 196 | 452662    | 1960.E24.gz43_254535 |
| M00054652B:A04 | ES 196 | 387728    | 1960.F04.gz43_254216 |
| M00054656C:E10 | ES 196 | 561590    | 1960.I07.gz43_254267 |
| M00054657D:E05 | ES 196 | 551531    | 1960.J11.gz43_254332 |
| M00054661A:B03 | ES 196 | 193991    | 1960.L03.gz43_254206 |
| M00054661D:A07 | ES 196 | 551065    | 1960.L12.gz43_254350 |
| M00054663D:D09 | ES 196 | 466851    | 1960.M24.gz43_254543 |
| M00054664D:A01 | ES 196 | 264575    | 1960.N14.gz43_254384 |
| M00054668A:D01 | ES 196 | 450624    | 1969.A10.gz43_254691 |
| M00054670D:F10 | ES 196 | 556424    | 1969.B21.gz43_254868 |
| M00054671A:H07 | ES 196 | 579481    | 1969.C07.gz43_254645 |
| M00054671D:A12 | ES 196 | 573733    | 1969.C24.gz43_254917 |
| M00054672C:F01 | ES 196 | 140763    | 1969.D20.gz43_254854 |
| M00054673B:G08 | ES 196 | 551845    | 1969.E09.gz43_254679 |
| M00054674B:B03 | ES 196 | 551269    | 1969.F03.gz43_254584 |
| M00054677D:H08 | ES 196 | 556959    | 1969.I02.gz43_254571 |
| M00054683D:F01 | ES 196 | 551630    | 1969.M04.gz43_254607 |
| M00054685D:D09 | ES 196 | 415326    | 1969.N11.gz43_254720 |
| M00054689C:B11 | ES 196 | 557935    | 1970.A03.gz43_263422 |
| M00054689D:E12 | ES 196 | 551527    | 1970.A06.gz43_263470 |
| M00054690B:B02 | ES 196 | 559389    | 1970.A14.gz43_263598 |
| M00054690B:D10 | ES 196 | 552418    | 1970.A16.gz43_263630 |
| M00054690D:G03 | ES 196 | 549388    | 1970.B04.gz43_263439 |
| M00054692B:C06 | ES 196 | 550330    | 1970.B20.gz43_263695 |
| M00054692B:D01 | ES 196 | 420686    | 1970.B21.gz43_263711 |
| M00054692C:B02 | ES 196 | 42994     | 1970.B23.gz43_263743 |
| M00054692D:F09 | ES 196 | 479208    | 1970.B24.gz43_263759 |
| M00054693A:C09 | ES 196 | 551243    | 1970.C05.gz43_263456 |
| M00054693A:E06 | ES 196 | 558938    | 1970.C08.gz43_263504 |
| M00054693B:B01 | ES 196 | 559036    | 1970.C09.gz43_263520 |
| M00054693C:A02 | ES 196 | 549995    | 1970.C14.gz43_263600 |
| M00054693D:A05 | ES 196 | 551150    | 1970.C18.gz43_263664 |
| M00054693D:A08 | ES 196 | 448332    | 1970.C19.gz43_263680 |
| M00054693D:C04 | ES 196 | 450755    | 1970.C20.gz43_263696 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054695A:A12 | ES 196 | 552051    | 1970.D08.gz43_263505 |
| M00054696B:H11 | ES 196 | 553128    | 1970.E06.gz43_263474 |
| M00054697A:E03 | ES 196 | 552649    | 1970.E12.gz43_263570 |
| M00054697A:G06 | ES 196 | 562216    | 1970.E14.gz43_263602 |
| M00054697C:E11 | ES 196 | 552581    | 1970.E21.gz43_263714 |
| M00054699A:G01 | ES 196 | 584499    | 1970.F15.gz43_263619 |
| M00054699B:A05 | ES 196 | 551996    | 1970.F16.gz43_263635 |
| M00054699B:F05 | ES 196 | 552733    | 1970.F18.gz43_263667 |
| M00054699C:A04 | ES 196 | 551995    | 1970.F21.gz43_263715 |
| M00054699D:A12 | ES 196 | 552055    | 1970.G02.gz43_263412 |
| M00054700A:B03 | ES 196 | 552254    | 1970.G04.gz43_263444 |
| M00054700A:F12 | ES 196 | 552733    | 1970.G06.gz43_263476 |
| M00054701D:H05 | ES 196 | 555255    | 1970.G23.gz43_263748 |
| M00054702A:C06 | ES 196 | 556896    | 1970.H01.gz43_263397 |
| M00054702A:F03 | ES 196 | 483141    | 1970.H02.gz43_263413 |
| M00054702A:H03 | ES 196 | 509202    | 1970.H03.gz43_263429 |
| M00054702C:G06 | ES 196 | 551754    | 1970.H09.gz43_263525 |
| M00054702D:E07 | ES 196 | 389201    | 1970.H12.gz43_263573 |
| M00054702D:F05 | ES 196 | 452392    | 1970.H14.gz43_263605 |
| M00054702D:H10 | ES 196 | 549945    | 1970.H16.gz43_263637 |
| M00054703C:F01 | ES 196 | 521552    | 1970.H22.gz43_263733 |
| M00054703D:E07 | ES 196 | 549238    | 1970.I01.gz43_263398 |
| M00054703D:F04 | ES 196 | 561434    | 1970.I02.gz43_263414 |
| M00054704B:B11 | ES 196 | 549038    | 1970.I06.gz43_263478 |
| M00054704D:F02 | ES 196 | 552682    | 1970.I12.gz43_263574 |
| M00054705B:C08 | ES 196 | 552314    | 1970.I14.gz43_263606 |
| M00054705B:D02 | ES 196 | 527679    | 1970.I16.gz43_263638 |
| M00054705B:E04 | ES 196 | 498454    | 1970.I18.gz43_263670 |
| M00054705C:B02 | ES 196 | 475730    | 1970.I21.gz43_263718 |
| M00054705C:D11 | ES 196 | 554477    | 1970.I24.gz43_263766 |
| M00054705D:G03 | ES 196 | 184995    | 1970.J03.gz43_263431 |
| M00054706A:G10 | ES 196 | 491827    | 1970.J09.gz43_263527 |
| M00054706B:F10 | ES 196 | 562884    | 1970.J15.gz43_263623 |
| M00054706C:A04 | ES 196 | 551955    | 1970.J17.gz43_263655 |
| M00054706C:B12 | ES 196 | 550053    | 1970.J19.gz43_263687 |
| M00054706D:B03 | ES 196 | 553358    | 1970.J22.gz43_263735 |
| M00054707B:B08 | ES 196 | 453708    | 1970.K02.gz43_263416 |
| M00054707C:D02 | ES 196 | 549151    | 1970.K06.gz43_263480 |
| M00054707C:G07 | ES 196 | 552894    | 1970.K09.gz43_263528 |
| M00054708A:F11 | ES 196 | 552686    | 1970.K12.gz43_263576 |
| M00054708B:F04 | ES 196 | 391511    | 1970.K16.gz43_263640 |
| M00054709A:A10 | ES 196 | 560317    | 1970.K24.gz43_263768 |
| M00054710B:B10 | ES 196 | 552197    | 1970.L17.gz43_263657 |
| M00054710C:A12 | ES 196 | 558768    | 1970.L22.gz43_263737 |

| Year | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 |      |

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054726A:E01 | ES 197 | 551487    | 1971.I10.gz43_247144 |
| M00054726B:F08 | ES 197 | 553739    | 1971.I16.gz43_247240 |
| M00054726B:F09 | ES 197 | 557747    | 1971.I17.gz43_247256 |
| M00054726C:D10 | ES 197 | 449035    | 1971.I21.gz43_247320 |
| M00054726C:E07 | ES 197 | 524721    | 1971.I22.gz43_247336 |
| M00054727A:B12 | ES 197 | 553264    | 1971.J09.gz43_247129 |
| M00054727D:C06 | ES 197 | 496772    | 1971.K01.gz43_247002 |
| M00054728B:C10 | ES 197 | 557356    | 1971.K09.gz43_247130 |
| M00054728C:B08 | ES 197 | 559113    | 1971.K13.gz43_247194 |
| M00054728D:B07 | ES 197 | 554048    | 1971.K18.gz43_247274 |
| M00054729B:A08 | ES 197 | 484043    | 1971.L05.gz43_247067 |
| M00054729B:B03 | ES 197 | 557426    | 1971.L06.gz43_247083 |
| M00054729B:E06 | ES 197 | 451812    | 1971.L09.gz43_247131 |
| M00054729C:C08 | ES 197 | 561830    | 1971.L12.gz43_247179 |
| M00054729C:G07 | ES 197 | 562263    | 1971.L15.gz43_247227 |
| M00054729D:D05 | ES 197 | 550315    | 1971.L18.gz43_247275 |
| M00054730B:F11 | ES 197 | 559380    | 1971.M11.gz43_247164 |
| M00054731A:D07 | ES 197 | 452488    | 1971.N05.gz43_247069 |
| M00054731B:C12 | ES 197 | 553310    | 1971.N13.gz43_247197 |
| M00054731B:D04 | ES 197 | 448453    | 1971.N14.gz43_247213 |
| M00054731B:G02 | ES 197 | 553751    | 1971.N17.gz43_247261 |
| M00054731C:H12 | ES 197 | 553869    | 1971.N24.gz43_247373 |
| M00054731D:H11 | ES 197 | 215005    | 1971.O04.gz43_247054 |
| M00054732A:B07 | ES 197 | 561379    | 1971.O06.gz43_247086 |
| M00054734B:C06 | ES 197 | 556654    | 1971.P10.gz43_247151 |
| M00054734B:G10 | ES 197 | 549288    | 1971.P15.gz43_247231 |
| M00054734C:A07 | ES 197 | 553108    | 1971.P17.gz43_247263 |
| M00054735A:G09 | ES 197 | 552686    | 1971.P24.gz43_247375 |
| M00054736B:H03 | ES 197 | 522322    | 1972.B13.gz43_247569 |
| M00054737B:H11 | ES 197 | 556167    | 1972.C05.gz43_247442 |
| M00054737C:B01 | ES 197 | 454186    | 1972.C06.gz43_247458 |
| M00054738B:E12 | ES 197 | 560282    | 1972.C21.gz43_247698 |
| M00054738D:F01 | ES 197 | 558679    | 1972.D13.gz43_247571 |
| M00054738D:G07 | ES 197 | 495832    | 1972.D15.gz43_247603 |
| M00054739A:F07 | ES 197 | 555773    | 1972.D24.gz43_247747 |
| M00054739C:B12 | ES 197 | 466235    | 1972.E08.gz43_247492 |
| M00054739C:E05 | ES 197 | 450142    | 1972.E12.gz43_247556 |
| M00054740C:H08 | ES 197 | 493122    | 1972.F15.gz43_247605 |
| M00054741C:D08 | ES 197 | 493135    | 1972.G15.gz43_247606 |
| M00054741D:C05 | ES 197 | 551778    | 1972.G19.gz43_247670 |
| M00054743A:C07 | ES 197 | 424723    | 1972.I03.gz43_247416 |
| M00054743A:E04 | ES 197 | 473455    | 1972.I04.gz43_247432 |
| M00054743C:E11 | ES 197 | 452257    | 1972.I13.gz43_247576 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054743D:F04 | ES 197 | 555077    | 1972.I19.gz43_247672 |
| M00054744A:G10 | ES 197 | 553834    | 1972.J05.gz43_247449 |
| M00054744C:D02 | ES 197 | 587854    | 1972.J16.gz43_247625 |
| M00054744D:G02 | ES 197 | 557068    | 1972.K03.gz43_247418 |
| M00054745C:B12 | ES 197 | 562793    | 1972.K15.gz43_247610 |
| M00054745C:H02 | ES 197 | 557871    | 1972.K19.gz43_247674 |
| M00054745D:G09 | ES 197 | 551441    | 1972.L04.gz43_247435 |
| M00054746A:H02 | ES 197 | 559494    | 1972.L09.gz43_247515 |
| M00054746D:E05 | ES 197 | 503452    | 1972.L22.gz43_247723 |
| M00054747D:B05 | ES 197 | 474309    | 1972.M24.gz43_247756 |
| M00054748B:G10 | ES 197 | 523753    | 1972.N13.gz43_247581 |
| M00054748B:H09 | ES 197 | 59202     | 1972.N14.gz43_247597 |
| M00054750A:E11 | ES 197 | 446997    | 1972.O06.gz43_247470 |
| M00054750A:G10 | ES 197 | 562323    | 1972.O09.gz43_247518 |
| M00054750B:F02 | ES 197 | 557568    | 1972.O12.gz43_247566 |
| M00054750C:D01 | ES 197 | 553457    | 1972.O18.gz43_247662 |
| M00054750D:F01 | ES 197 | 559215    | 1972.P01.gz43_247391 |
| M00054750D:H12 | ES 197 | 499517    | 1972.P03.gz43_247423 |
| M00054751A:A05 | ES 197 | 86145     | 1972.P04.gz43_247439 |
| M00054751B:F12 | ES 197 | 553702    | 1972.P14.gz43_247599 |
| M00054751D:G10 | ES 197 | 553800    | 1972.P24.gz43_247759 |
| M00054752A:C12 | ES 197 | 562451    | 1981.A03.gz43_247792 |
| M00054752B:H06 | ES 197 | 495942    | 1981.A10.gz43_247904 |
| M00054753A:A05 | ES 197 | 554000    | 1981.A18.gz43_248032 |
| M00054753C:H02 | ES 197 | 553918    | 1981.B08.gz43_247873 |
| M00054753D:A03 | ES 197 | 477046    | 1981.B09.gz43_247889 |
| M00054753D:C12 | ES 197 | 256179    | 1981.B11.gz43_247921 |
| M00054753D:H10 | ES 197 | 553922    | 1981.B13.gz43_247953 |
| M00054754B:F04 | ES 197 | 558609    | 1981.B16.gz43_248001 |
| M00054754C:H09 | ES 197 | 550580    | 1981.B22.gz43_248097 |
| M00054754D:F11 | ES 197 | 551693    | 1981.C04.gz43_247810 |
| M00054755A:E10 | ES 197 | 493135    | 1981.C10.gz43_247906 |
| M00054755C:D04 | ES 197 | 561412    | 1981.C24.gz43_248130 |
| M00054755D:E02 | ES 197 | 562360    | 1981.D02.gz43_247779 |
| M00054755D:E05 | ES 197 | 513632    | 1981.D03.gz43_247795 |
| M00054756A:C12 | ES 197 | 551289    | 1981.D09.gz43_247891 |
| M00054756C:C08 | ES 197 | 551288    | 1981.D15.gz43_247987 |
| M00054756D:F05 | ES 197 | 451993    | 1981.D19.gz43_248051 |
| M00054757A:H07 | ES 197 | 555343    | 1981.D21.gz43_248083 |
| M00054757B:H04 | ES 197 | 561433    | 1981.E04.gz43_247812 |
| M00054758A:F03 | ES 197 | 554336    | 1981.E13.gz43_247956 |
| M00054758B:C10 | ES 197 | 122169    | 1981.E15.gz43_247988 |
| M00054758B:D03 | ES 197 | 554352    | 1981.E16.gz43_248004 |
| M00054758B:H03 | ES 197 | 554049    | 1981.E18.gz43_248036 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054758D:D03 | ES 197 | 551415    | 1981.E24.gz43_248132 |
| M00054759A:B08 | ES 197 | 553158    | 1981.F03.gz43_247797 |
| M00054759C:D07 | ES 197 | 553800    | 1981.F11.gz43_247925 |
| M00054759C:G10 | ES 197 | 560529    | 1981.F13.gz43_247957 |
| M00054759D:E01 | ES 197 | 556064    | 1981.F17.gz43_248021 |
| M00054760A:A12 | ES 197 | 551117    | 1981.F22.gz43_248101 |
| M00054760A:D10 | ES 197 | 561535    | 1981.F24.gz43_248133 |
| M00054760B:A10 | ES 197 | 549588    | 1981.G04.gz43_247814 |
| M00054760D:B03 | ES 197 | 263800    | 1981.G09.gz43_247894 |
| M00054761C:E02 | ES 197 | 558719    | 1981.G24.gz43_248134 |
| M00054761D:C11 | ES 197 | 493604    | 1981.H04.gz43_247815 |
| M00054762A:D09 | ES 197 | 556183    | 1981.H10.gz43_247911 |
| M00054762B:F02 | ES 197 | 558900    | 1981.H14.gz43_247975 |
| M00054762B:F07 | ES 197 | 551617    | 1981.H15.gz43_247991 |
| M00054762C:A12 | ES 197 | 558503    | 1981.H18.gz43_248039 |
| M00054762D:C06 | ES 197 | 551338    | 1981.H24.gz43_248135 |
| M00054763A:A10 | ES 197 | 472196    | 1981.I02.gz43_247784 |
| M00054763C:D07 | ES 197 | 554021    | 1981.I04.gz43_247816 |
| M00054763C:F10 | ES 197 | 558900    | 1981.I05.gz43_247832 |
| M00054763C:H04 | ES 197 | 450840    | 1981.I06.gz43_247848 |
| M00054764A:E11 | ES 197 | 576803    | 1981.I14.gz43_247976 |
| M00054764C:G04 | ES 197 | 555754    | 1981.I22.gz43_248104 |
| M00054764D:F01 | ES 197 | 556019    | 1981.J01.gz43_247769 |
| M00054765B:C03 | ES 197 | 561487    | 1981.J07.gz43_247865 |
| M00054765B:C11 | ES 197 | 554181    | 1981.J09.gz43_247897 |
| M00054765C:F10 | ES 197 | 553131    | 1981.J20.gz43_248073 |
| M00054765D:D05 | ES 197 | 554294    | 1981.K05.gz43_247834 |
| M00054766A:H10 | ES 197 | 508126    | 1981.K17.gz43_248026 |
| M00054766C:B08 | ES 197 | 498662    | 1981.L03.gz43_247803 |
| M00054766C:E01 | ES 197 | 552541    | 1981.L07.gz43_247867 |
| M00054766D:H02 | ES 197 | 260558    | 1981.L15.gz43_247995 |
| M00054766D:H12 | ES 197 | 554851    | 1981.L16.gz43_248011 |
| M00054767A:F08 | ES 197 | 556475    | 1981.L22.gz43_248107 |
| M00054767C:C08 | ES 197 | 552535    | 1981.M13.gz43_247964 |
| M00054767C:D03 | ES 197 | 455220    | 1981.M14.gz43_247980 |
| M00054767C:H06 | ES 197 | 549576    | 1981.M17.gz43_248028 |
| M00054767D:G09 | ES 197 | 552549    | 1981.M22.gz43_248108 |
| M00054768B:B05 | ES 197 | 559369    | 1981.N01.gz43_247773 |
| M00054768B:D10 | ES 197 | 400628    | 1981.N05.gz43_247837 |
| M00054768D:A01 | ES 197 | 448357    | 1981.N10.gz43_247917 |
| M00054768D:B11 | ES 197 | 451051    | 1981.N11.gz43_247933 |
| M00054769A:G10 | ES 197 | 512432    | 1981.N21.gz43_248093 |
| M00054769B:D12 | ES 197 | 550402    | 1981.O04.gz43_247822 |
| M00054769B:F03 | ES 197 | 554635    | 1981.O06.gz43_247854 |



Table.13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054770A:C06 | ES 197 | 558949    | 1981.O19.gz43_248062 |
| M00054770B:A12 | ES 197 | 552733    | 1981.O24.gz43_248142 |
| M00054770B:B11 | ES 197 | 556918    | 1981.P01.gz43_247775 |
| M00054770B:D09 | ES 197 | 448510    | 1981.P04.gz43_247823 |
| M00054770C:A04 | ES 197 | 528775    | 1981.P07.gz43_247871 |
| M00054770C:C04 | ES 197 | 554161    | 1981.P10.gz43_247919 |
| M00054770C:D05 | ES 197 | 555478    | 1981.P11.gz43_247935 |
| M00054770C:F10 | ES 197 | 554581    | 1981.P12.gz43_247951 |
| M00054771A:E01 | ES 197 | 470351    | 1981.P23.gz43_248127 |
| M00054771B:F12 | ES 197 | 492779    | 1982.A02.gz43_248160 |
| M00054771C:A11 | ES 197 | 551068    | 1982.A04.gz43_248192 |
| M00054771D:G01 | ES 197 | 551718    | 1982.A08.gz43_248256 |
| M00054772B:B01 | ES 197 | 586600    | 1982.A15.gz43_248368 |
| M00054772B:D04 | ES 197 | 472672    | 1982.A17.gz43_248400 |
| M00054772B:F03 | ES 197 | 493085    | 1982.A18.gz43_248416 |
| M00054772D:G12 | ES 197 | 553774    | 1982.B06.gz43_248225 |
| M00054773A:E09 | ES 197 | 551169    | 1982.B08.gz43_248257 |
| M00054773A:H05 | ES 197 | 402147    | 1982.B09.gz43_248273 |
| M00054773C:D06 | ES 197 | 42323     | 1982.B15.gz43_248369 |
| M00054773C:F09 | ES 197 | 557834    | 1982.B18.gz43_248417 |
| M00054773C:F10 | ES 197 | 448629    | 1982.B19.gz43_248433 |
| M00054774B:A07 | ES 197 | 555686    | 1982.C03.gz43_248178 |
| M00054774B:G08 | ES 197 | 554072    | 1982.C06.gz43_248226 |
| M00054774C:A03 | ES 197 | 552019    | 1982.C07.gz43_248242 |
| M00054774C:D12 | ES 197 | 552495    | 1982.C08.gz43_248258 |
| M00054774D:D06 | ES 197 | 559050    | 1982.C10.gz43_248290 |
| M00054775A:D07 | ES 197 | 555462    | 1982.C16.gz43_248386 |
| M00054775A:G03 | ES 197 | 595181    | 1982.C17.gz43_248402 |
| M00054776A:D10 | ES 197 | 557269    | 1982.D09.gz43_248275 |
| M00054776A:F01 | ES 197 | 560520    | 1982.D10.gz43_248291 |
| M00054776A:F07 | ES 197 | 447926    | 1982.D11.gz43_248307 |
| M00054776A:G01 | ES 197 | 412621    | 1982.D12.gz43_248323 |
| M00054776C:G06 | ES 197 | 554828    | 1982.E06.gz43_248228 |
| M00054776D:G09 | ES 197 | 553743    | 1982.E11.gz43_248308 |
| M00054778A:D01 | ES 197 | 555958    | 1982.F01.gz43_248149 |
| M00054778A:F08 | ES 197 | 551003    | 1982.F05.gz43_248213 |
| M00054778B:A02 | ES 197 | 551080    | 1982.F08.gz43_248261 |
| M00054778C:F09 | ES 197 | 548998    | 1982.F18.gz43_248421 |
| M00054779B:A07 | ES 197 | 465207    | 1982.G05.gz43_248214 |
| M00054779B:B07 | ES 197 | 559872    | 1982.G06.gz43_248230 |
| M00054779B:B11 | ES 197 | 556183    | 1982.G07.gz43_248246 |
| M00054779D:F07 | ES 197 | 554627    | 1982.G17.gz43_248406 |
| M00054779D:F08 | ES 197 | 551425    | 1982.G18.gz43_248422 |
| M00054780A:B06 | ES 197 | 550422    | 1982.G21.gz43_248470 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054780B:B06 | ES 197 | 555524    | 1982.H03.gz43_248183 |
| M00054780B:E03 | ES 197 | 533991    | 1982.H05.gz43_248215 |
| M00054780B:G10 | ES 197 | 491570    | 1982.H06.gz43_248231 |
| M00054780C:G11 | ES 197 | 558519    | 1982.H14.gz43_248359 |
| M00054781A:H09 | ES 197 | 505792    | 1982.H21.gz43_248471 |
| M00054781D:F10 | ES 197 | 556171    | 1982.I02.gz43_248168 |
| M00054782B:B02 | ES 197 | 551167    | 1982.I05.gz43_248216 |
| M00054782B:D09 | ES 197 | 551425    | 1982.I07.gz43_248248 |
| M00054782D:D12 | ES 197 | 575924    | 1982.I10.gz43_248296 |
| M00054783C:C02 | ES 197 | 557039    | 1982.I16.gz43_248392 |
| M00054783C:C03 | ES 197 | 552325    | 1982.I17.gz43_248408 |
| M00054784C:D11 | ES 197 | 552535    | 1982.J07.gz43_248249 |
| M00054784D:B01 | ES 197 | 554582    | 1982.J10.gz43_248297 |
| M00054785B:B07 | ES 197 | 552188    | 1982.J13.gz43_248345 |
| M00054785C:C02 | ES 197 | 562263    | 1982.J15.gz43_248377 |
| M00054785C:G11 | ES 197 | 462511    | 1982.J17.gz43_248409 |
| M00054785D:A07 | ES 197 | 552005    | 1982.J19.gz43_248441 |
|                |        |           |                      |
| M00054786A:G11 | ES 198 | 561422    | 1982.J21.gz43_248473 |
| M00054786C:G01 | ES 198 | 553330    | 1982.K02.gz43_248170 |
| M00054786D:F08 | ES 198 | 553868    | 1982.K05.gz43_248218 |
| M00054787D:A10 | ES 198 | 580179    | 1982.K12.gz43_248330 |
| M00054788C:G04 | ES 198 | 552813    | 1982.K17.gz43_248410 |
| M00054789A:A02 | ES 198 | 490414    | 1982.K18.gz43_248426 |
| M00054790D:D05 | ES 198 | 548874    | 1982.L06.gz43_248235 |
| M00054801C:G01 | ES 198 | 549233    | 1982.L17.gz43_248411 |
| M00054802A:G03 | ES 198 | 446394    | 1982.M01.gz43_248156 |
| M00054802A:H05 | ES 198 | 490507    | 1982.M03.gz43_248188 |
| M00054802C:A07 | ES 198 | 374282    | 1982.M06.gz43_248236 |
| M00054802D:A09 | ES 198 | 555696    | 1982.M10.gz43_248300 |
| M00054802D:C02 | ES 198 | 497477    | 1982.M12.gz43_248332 |
| M00054802D:C03 | ES 198 | 456052    | 1982.M13.gz43_248348 |
| M00054803A:D08 | ES 198 | 175758    | 1982.M17.gz43_248412 |
| M00054803A:E10 | ES 198 | 551553    | 1982.M18.gz43_248428 |
| M00054803B:B12 | ES 198 | 554116    | 1982.M20.gz43_248460 |
| M00054803C:G01 | ES 198 | 551755    | 1982.M24.gz43_248524 |
| M00054804A:G08 | ES 198 | 496570    | 1982.N08.gz43_248269 |
| M00054804A:H04 | ES 198 | 539353    | 1982.N09.gz43_248285 |
| M00054804B:E07 | ES 198 | 553979    | 1982.N11.gz43_248317 |
| M00054804C:F04 | ES 198 | 553237    | 1982.N14.gz43_248365 |
| M00054804D:A11 | ES 198 | 559896    | 1982.N16.gz43_248397 |
| M00054804D:D07 | ES 198 | 555571    | 1982.N18.gz43_248429 |
| M00054804D:H12 | ES 198 | 417259    | 1982.N22.gz43_248493 |
| M00054805A:E09 | ES 198 | 553612    | 1982.O03.gz43_248190 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054805A:H04 | ES 198 | 552183    | 1982.O04.gz43_248206 |
| M00054805B:E06 | ES 198 | 556856    | 1982.O10.gz43_248302 |
| M00054805B:E11 | ES 198 | 497912    | 1982.O11.gz43_248318 |
| M00054805B:G02 | ES 198 | 556856    | 1982.O14.gz43_248366 |
| M00054805B:G10 | ES 198 | 394168    | 1982.O16.gz43_248398 |
| M00054806A:G04 | ES 198 | 553848    | 1982.P02.gz43_248175 |
| M00054806C:C12 | ES 198 | 517146    | 1982.P08.gz43_248271 |
| M00054806D:C01 | ES 198 | 553331    | 1982.P10.gz43_248303 |
| M00054811A:C10 | ES 198 | 551512    | 1983.C10.gz43_255077 |
| M00054811B:H12 | ES 198 | 494471    | 1983.C19.gz43_255221 |
| M00054811D:F01 | ES 198 | 551659    | 1983.D01.gz43_254934 |
| M00054812D:H05 | ES 198 | 549816    | 1983.E06.gz43_255015 |
| M00054813B:D11 | ES 198 | 456520    | 1983.E19.gz43_255223 |
| M00054814A:F07 | ES 198 | 557525    | 1983.F09.gz43_255064 |
| M00054823B:E07 | ES 198 | 450788    | 1983.K11.gz43_255101 |
| M00054824A:E02 | ES 198 | 555641    | 1983.L07.gz43_255038 |
| M00054826B:G08 | ES 198 | 447087    | 1983.N07.gz43_255040 |
| M00054831A:E11 | ES 198 | 554196    | 1984.A12.gz43_255491 |
| M00054831B:E05 | ES 198 | 451081    | 1984.A20.gz43_255619 |
| M00054839D:F08 | ES 198 | 562302    | 1984.G07.gz43_255417 |
| M00054840D:B03 | ES 198 | 557703    | 1984.G21.gz43_255641 |
| M00054842B:B12 | ES 198 | 554696    | 1984.I08.gz43_255435 |
| M00054848B:E02 | ES 198 | 533520    | 1984.N02.gz43_255344 |
| M00054851B:E03 | ES 198 | 560984    | 1984.P06.gz43_255410 |
| M00054852C:G03 | ES 198 | 559885    | 1993.A04.gz43_263822 |
| M00054852D:D09 | ES 198 | 556715    | 1993.A09.gz43_263902 |
| M00054853A:A10 | ES 198 | 556132    | 1993.A11.gz43_263934 |
| M00054853B:E07 | ES 198 | 522703    | 1993.A18.gz43_264046 |
| M00054853B:E10 | ES 198 | 599433    | 1993.A19.gz43_264062 |
| M00054854A:H06 | ES 198 | 554524    | 1993.B05.gz43_263839 |
| M00054854B:C04 | ES 198 | 548861    | 1993.B07.gz43_263871 |
| M00054854C:H02 | ES 198 | 450829    | 1993.B12.gz43_263951 |
| M00054855B:E04 | ES 198 | 554672    | 1993.C05.gz43_263840 |
| M00054855B:F10 | ES 198 | 556918    | 1993.C07.gz43_263872 |
| M00054855C:B06 | ES 198 | 496897    | 1993.C09.gz43_263904 |
| M00054855C:H08 | ES 198 | 557209    | 1993.C13.gz43_263968 |
| M00054855D:G12 | ES 198 | 557077    | 1993.C14.gz43_263984 |
| M00054856A:F08 | ES 198 | 554613    | 1993.C20.gz43_264080 |
| M00054856D:E11 | ES 198 | 560714    | 1993.D05.gz43_263841 |
| M00054857A:B11 | ES 198 | 554084    | 1993.D09.gz43_263905 |
| M00054857A:G09 | ES 198 | 554756    | 1993.D14.gz43_263985 |
| M00054857A:G12 | ES 198 | 554989    | 1993.D15.gz43_264001 |
| M00054857B:D08 | ES 198 | 593343    | 1993.D19.gz43_264065 |
| M00054857C:G09 | ES 198 | 555740    | 1993.E02.gz43_263794 |

$\Gamma_{\text{H}^+}^{(12)}$   $\Gamma_{\text{H}^+}^{(23)}$   $\Gamma_{\text{H}^+}^{(31)}$   $\Gamma_{\text{H}^+}^{(123)}$   $\Gamma_{\text{H}^+}^{(1234)}$   $\Gamma_{\text{H}^+}^{(12345)}$   $\Gamma_{\text{H}^+}^{(123456)}$   $\Gamma_{\text{H}^+}^{(1234567)}$   $\Gamma_{\text{H}^+}^{(12345678)}$   $\Gamma_{\text{H}^+}^{(123456789)}$   $\Gamma_{\text{H}^+}^{(1234567890)}$   
 $\Gamma_{\text{H}^+}^{(12345678901)}$   $\Gamma_{\text{H}^+}^{(123456789012)}$   $\Gamma_{\text{H}^+}^{(1234567890123)}$   $\Gamma_{\text{H}^+}^{(12345678901234)}$   $\Gamma_{\text{H}^+}^{(123456789012345)}$   $\Gamma_{\text{H}^+}^{(1234567890123456)}$   $\Gamma_{\text{H}^+}^{(12345678901234567)}$   $\Gamma_{\text{H}^+}^{(123456789012345678)}$   $\Gamma_{\text{H}^+}^{(1234567890123456789)}$   $\Gamma_{\text{H}^+}^{(12345678901234567890)}$

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054869D:F02 | ES 198 | 594434    | 1993.O10.gz43_263932 |
| M00054870A:D11 | ES 198 | 549666    | 1993.O13.gz43_263980 |
| M00054870B:A12 | ES 198 | 553072    | 1993.O17.gz43_264044 |
| M00054870B:G12 | ES 198 | 555553    | 1993.O21.gz43_264108 |
| M00054870C:C05 | ES 198 | 522648    | 1993.P03.gz43_263821 |
| M00054870C:E06 | ES 198 | 556382    | 1993.P04.gz43_263837 |
| M00054870D:G08 | ES 198 | 555702    | 1993.P10.gz43_263933 |
| M00054871A:C04 | ES 198 | 390017    | 1993.P14.gz43_263997 |
| M00054871A:E03 | ES 198 | 553582    | 1993.P15.gz43_264013 |
| M00054871A:E07 | ES 198 | 524464    | 1993.P18.gz43_264061 |
| M00054871A:H07 | ES 198 | 481641    | 1993.P21.gz43_264109 |
| M00054871B:E10 | ES 198 | 553586    | 1993.P24.gz43_264157 |
| M00054871B:F06 | ES 198 | 556839    | 1994.A02.gz43_255715 |
| M00054872A:H10 | ES 198 | 559531    | 1994.A19.gz43_255987 |
| M00054873C:E09 | ES 198 | 553636    | 1994.B17.gz43_255956 |
| M00054877A:F01 | ES 198 | 562243    | 1994.E15.gz43_255927 |
| M00054878B:G03 | ES 198 | 447483    | 1994.F22.gz43_256040 |
| M00054885C:G06 | ES 198 | 549391    | 1994.K24.gz43_256077 |
| M00054887C:E09 | ES 198 | 558564    | 1994.M12.gz43_255887 |
| M00054891D:D03 | ES 198 | 556722    | 1995.A01.gz43_256083 |
| M00054891D:H05 | ES 198 | 557218    | 1995.A03.gz43_256115 |
| M00054892C:G05 | ES 198 | 555998    | 1995.A14.gz43_256291 |
| M00054892D:D06 | ES 198 | 454812    | 1995.A19.gz43_256371 |
| M00054893A:F08 | ES 198 | 550047    | 1995.B06.gz43_256164 |
| M00054893C:A06 | ES 198 | 562106    | 1995.B14.gz43_256292 |
| M00054893C:A07 | ES 198 | 554002    | 1995.B15.gz43_256308 |
| M00054893C:B02 | ES 198 | 556365    | 1995.B16.gz43_256324 |
| M00054893C:E04 | ES 198 | 551463    | 1995.B20.gz43_256388 |
| M00054893C:G06 | ES 198 | 474163    | 1995.B22.gz43_256420 |
| M00054893D:D12 | ES 198 | 556632    | 1995.B24.gz43_256452 |
| M00054893D:F07 | ES 198 | 550204    | 1995.C02.gz43_256101 |
| M00054893D:G09 | ES 198 | 562152    | 1995.C03.gz43_256117 |
| M00054894A:F05 | ES 198 | 469605    | 1995.C06.gz43_256165 |
| M00054894C:B11 | ES 198 | 556404    | 1995.C12.gz43_256261 |
| M00054894D:F04 | ES 198 | 446186    | 1995.C15.gz43_256309 |
| M00054895B:A02 | ES 198 | 558779    | 1995.C23.gz43_256437 |
| M00054895B:A08 | ES 198 | 596809    | 1995.C24.gz43_256453 |
| M00054895B:D09 | ES 198 | 447858    | 1995.D05.gz43_256150 |
| M00054895C:B07 | ES 198 | 82864     | 1995.D11.gz43_256246 |
| M00054895D:B02 | ES 198 | 549228    | 1995.D16.gz43_256326 |
| M00054895D:C10 | ES 198 | 552122    | 1995.D18.gz43_256358 |
| M00054896B:E09 | ES 198 | 562672    | 1995.E04.gz43_256135 |
| M00054896C:D08 | ES 198 | 556725    | 1995.E09.gz43_256215 |
| M00054896C:F01 | ES 198 | 451049    | 1995.E10.gz43_256231 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054896D:C01 | ES 198 | 556499    | 1995.E13.gz43_256279 |
| M00054896D:C11 | ES 198 | 557326    | 1995.E14.gz43_256295 |
| M00054896D:E11 | ES 198 | 557283    | 1995.E16.gz43_256327 |
| M00054897C:F03 | ES 198 | 562679    | 1995.F03.gz43_256120 |
| M00054897D:E08 | ES 198 | 556804    | 1995.F07.gz43_256184 |
| M00054898A:G09 | ES 198 | 453715    | 1995.F13.gz43_256280 |
| M00054898B:A03 | ES 198 | 556328    | 1995.F16.gz43_256328 |
| M00054898B:D01 | ES 198 | 549997    | 1995.F20.gz43_256392 |
| M00054898B:D04 | ES 198 | 458035    | 1995.F21.gz43_256408 |
| M00054898D:H12 | ES 198 | 543855    | 1995.G03.gz43_256121 |
| M00054899A:D09 | ES 198 | 460690    | 1995.G05.gz43_256153 |
| M00054899C:D11 | ES 198 | 553534    | 1995.G16.gz43_256329 |
| M00054899D:C11 | ES 198 | 558011    | 1995.G20.gz43_256393 |
| M00054899D:F07 | ES 198 | 555830    | 1995.G23.gz43_256441 |
| M00054899D:G01 | ES 198 | 561382    | 1995.H01.gz43_256090 |
| M00054900B:A09 | ES 198 | 556362    | 1995.H05.gz43_256154 |
| M00054900B:D08 | ES 198 | 525429    | 1995.H07.gz43_256186 |
| M00054900B:D12 | ES 198 | 559554    | 1995.H08.gz43_256202 |
| M00054900B:G10 | ES 198 | 560668    | 1995.H10.gz43_256234 |
| M00054900C:B04 | ES 198 | 559554    | 1995.H11.gz43_256250 |
| M00054900C:C03 | ES 198 | 516691    | 1995.H12.gz43_256266 |
| M00054900C:D08 | ES 198 | 556753    | 1995.H13.gz43_256282 |
| M00054900D:F11 | ES 198 | 557004    | 1995.H16.gz43_256330 |
| M00054900D:G04 | ES 198 | 561115    | 1995.H17.gz43_256346 |
| M00054901A:B04 | ES 198 | 559088    | 1995.H20.gz43_256394 |
| M00054901A:F01 | ES 198 | 555837    | 1995.H21.gz43_256410 |
| M00054901A:H11 | ES 198 | 556169    | 1995.H22.gz43_256426 |
| M00054901B:H10 | ES 198 | 556165    | 1995.I03.gz43_256123 |
| M00054901C:A04 | ES 198 | 559088    | 1995.I04.gz43_256139 |
| M00054901C:G01 | ES 198 | 553102    | 1995.I07.gz43_256187 |
| M00054901D:B01 | ES 198 | 555260    | 1995.I10.gz43_256235 |
| M00054902B:G02 | ES 198 | 595066    | 1995.I20.gz43_256395 |
| M00054902C:A12 | ES 198 | 452182    | 1995.I21.gz43_256411 |
| M00054903A:G07 | ES 198 | 555701    | 1995.J03.gz43_256124 |
|                |        |           |                      |
| M00054903B:A02 | ES 199 | 559113    | 1995.J04.gz43_256140 |
| M00054903C:F03 | ES 199 | 555785    | 1995.J10.gz43_256236 |
| M00054903C:G03 | ES 199 | 549847    | 1995.J13.gz43_256284 |
| M00054903C:G04 | ES 199 | 558935    | 1995.J14.gz43_256300 |
| M00054903D:B05 | ES 199 | 555184    | 1995.J15.gz43_256316 |
| M00054903D:G01 | ES 199 | 558177    | 1995.J19.gz43_256380 |
| M00054903D:G10 | ES 199 | 555967    | 1995.J21.gz43_256412 |
| M00054904A:F07 | ES 199 | 554604    | 1995.K02.gz43_256109 |
| M00054904A:H10 | ES 199 | 549376    | 1995.K03.gz43_256125 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
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| M00054904C:A02 | ES 199 | 554028    | 1995.K07.gz43_256189 |
| M00054904C:B06 | ES 199 | 510309    | 1995.K08.gz43_256205 |
| M00054904C:G09 | ES 199 | 549822    | 1995.K13.gz43_256285 |
| M00054904D:B01 | ES 199 | 559036    | 1995.K14.gz43_256301 |
| M00054904D:F07 | ES 199 | 411272    | 1995.K18.gz43_256365 |
| M00054904D:G04 | ES 199 | 558868    | 1995.K20.gz43_256397 |
| M00054906D:D06 | ES 199 | 492256    | 1995.L05.gz43_256158 |
| M00054907A:D01 | ES 199 | 554344    | 1995.L08.gz43_256206 |
| M00054907B:E07 | ES 199 | 489001    | 1995.L13.gz43_256286 |
| M00054907B:F01 | ES 199 | 399766    | 1995.L14.gz43_256302 |
| M00054907C:A12 | ES 199 | 553969    | 1995.L16.gz43_256334 |
| M00054907C:D03 | ES 199 | 554246    | 1995.L18.gz43_256366 |
| M00054907D:D01 | ES 199 | 554244    | 1995.L22.gz43_256430 |
| M00054908A:F10 | ES 199 | 522220    | 1995.M03.gz43_256127 |
| M00054908C:A10 | ES 199 | 555082    | 1995.M17.gz43_256351 |
| M00054908D:A07 | ES 199 | 558326    | 1995.N02.gz43_256112 |
| M00054910A:H12 | ES 199 | 562492    | 1995.N08.gz43_256208 |
| M00054910B:F07 | ES 199 | 561525    | 1995.N09.gz43_256224 |
| M00054910D:F04 | ES 199 | 555786    | 1995.N13.gz43_256288 |
| M00054921C:G01 | ES 199 | 554747    | 1995.N23.gz43_256448 |
| M00054921C:G06 | ES 199 | 495365    | 1995.N24.gz43_256464 |
| M00054922A:C11 | ES 199 | 550710    | 1995.O03.gz43_256129 |
| M00054922B:A08 | ES 199 | 553975    | 1995.O08.gz43_256209 |
| M00054922B:A10 | ES 199 | 150839    | 1995.O09.gz43_256225 |
| M00054922B:F03 | ES 199 | 554554    | 1995.O10.gz43_256241 |
| M00054922C:A11 | ES 199 | 553976    | 1995.O14.gz43_256305 |
| M00054922D:A07 | ES 199 | 471152    | 1995.O18.gz43_256369 |
| M00054923A:H02 | ES 199 | 447639    | 1995.O24.gz43_256465 |
| M00054923D:A08 | ES 199 | 562579    | 1995.P06.gz43_256178 |
| M00054923D:D04 | ES 199 | 559118    | 1995.P07.gz43_256194 |
| M00054924B:E10 | ES 199 | 562989    | 1995.P13.gz43_256290 |
| M00054924B:F02 | ES 199 | 448793    | 1995.P14.gz43_256306 |
| M00054924B:F07 | ES 199 | 553691    | 1995.P15.gz43_256322 |
| M00054924D:E01 | ES 199 | 562714    | 1995.P17.gz43_256354 |
| M00054925A:B08 | ES 199 | 556852    | 1995.P19.gz43_256386 |
| M00054925B:B01 | ES 199 | 559728    | 1996.A04.gz43_256539 |
| M00054927C:C03 | ES 199 | 473512    | 1996.B13.gz43_256684 |
| M00054928A:C11 | ES 199 | 550782    | 1996.B20.gz43_256796 |
| M00054930D:D04 | ES 199 | 558024    | 1996.D13.gz43_256686 |
| M00054931C:F10 | ES 199 | 549171    | 1996.E06.gz43_256575 |
| M00054933A:H09 | ES 199 | 44608     | 1996.F18.gz43_256768 |
| M00054933B:C02 | ES 199 | 562106    | 1996.F20.gz43_256800 |
| M00054936B:G02 | ES 199 | 555739    | 1996.I18.gz43_256771 |
| M00054936C:B08 | ES 199 | 549805    | 1996.I19.gz43_256787 |

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|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|
| 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 | 1979 | 1980 | 1981 | 1982 | 1983 | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 | 2031 | 2032 | 2033 | 2034 | 2035 | 2036 | 2037 | 2038 | 2039 | 2040 | 2041 | 2042 | 2043 | 2044 | 2045 | 2046 | 2047 | 2048 | 2049 | 2050 | 2051 | 2052 | 2053 | 2054 | 2055 | 2056 | 2057 | 2058 | 2059 | 2060 | 2061 | 2062 | 2063 | 2064 | 2065 | 2066 | 2067 | 2068 | 2069 | 2070 | 2071 | 2072 | 2073 | 2074 | 2075 | 2076 | 2077 | 2078 | 2079 | 2080 | 2081 | 2082 | 2083 | 2084 | 2085 | 2086 | 2087 | 2088 | 2089 | 2090 | 2091 | 2092 | 2093 | 2094 | 2095 | 2096 | 2097 | 2098 | 2099 | 2100 | 2101 | 2102 | 2103 | 2104 | 2105 | 2106 | 2107 | 2108 | 2109 | 2110 | 2111 | 2112 | 2113 | 2114 | 2115 | 2116 | 2117 | 2118 | 2119 | 2120 | 2121 | 2122 | 2123 | 2124 | 2125 | 2126 | 2127 | 2128 | 2129 | 2130 | 2131 | 2132 | 2133 | 2134 | 2135 | 2136 | 2137 | 2138 | 2139 | 2140 | 2141 | 2142 | 2143 | 2144 | 2145 | 2146 | 2147 | 2148 | 2149 | 2150 | 2151 | 2152 | 2153 | 2154 | 2155 | 2156 | 2157 | 2158 | 2159 | 2160 | 2161 | 2162 | 2163 | 2164 | 2165 | 2166 | 2167 | 2168 | 2169 | 2170 | 2171 | 2172 | 2173 | 2174 | 2175 | 2176 | 2177 | 2178 | 2179 | 2180 | 2181 | 2182 | 2183 | 2184 | 2185 | 2186 | 2187 | 2188 | 2189 | 2190 | 2191 | 2192 | 2193 | 2194 | 2195 | 2196 | 2197 | 2198 | 2199 | 2200 | 2201 | 2202 | 2203 | 2204 | 2205 | 2206 | 2207 | 2208 | 2209 | 2210 | 2211 | 2212 | 2213 | 2214 | 2215 | 2216 | 2217 | 2218 | 2219 | 2220 | 2221 | 2222 | 2223 | 2224 | 2225 | 2226 | 2227 | 2228 | 2229 | 2230 | 2231 | 2232 | 2233 | 2234 | 2235 | 2236 | 2237 | 2238 | 2239 | 2240 | 2241 | 2242 | 2243 | 2244 | 2245 | 2246 | 2247 | 2248 | 2249 | 2250 | 2251 | 2252 | 2253 | 2254 | 2255 | 2256 | 2257 | 2258 | 2259 | 2260 | 2261 | 2262 | 2263 | 2264 | 2265 | 2266 | 2267 | 2268 | 2269 | 2270 | 2271 | 2272 | 2273 | 2274 | 2275 | 2276 | 2277 | 2278 | 2279 | 2280 | 2281 | 2282 | 2283 | 2284 | 2285 | 2286 | 2287 | 2288 | 2289 | 2290 | 2291 | 2292 | 2293 | 2294 | 2295 | 2296 | 2297 | 2298 | 2299 | 2300 | 2301 | 2302 | 2303 | 2304 | 2305 | 2306 | 2307 | 2308 | 2309 | 2310 | 2311 | 2312 | 2313 | 2314 | 2315 | 2316 | 2317 | 2318 | 2319 | 2320 | 2321 | 2322 | 2323 | 2324 | 2325 | 2326 | 2327 | 2328 | 2329 | 2330 | 2331 | 2332 | 2333 | 2334 | 2335 | 2336 | 2337 | 2338 | 2339 | 2340 | 2341 | 2342 | 2343 | 2344 | 2345 | 2346 | 2347 | 2348 | 2349 | 2350 | 2351 | 2352</ |
|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------|

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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
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| M00054966A:D06 | ES 199 | 593166    | 2006.G05.gz43_257331 |
| M00054966A:D09 | ES 199 | 593173    | 2006.G06.gz43_257347 |
| M00054966A:G02 | ES 199 | 556126    | 2006.G10.gz43_257411 |
| M00054966D:C05 | ES 199 | 497938    | 2006.G22.gz43_257603 |
| M00054966D:H12 | ES 199 | 494306    | 2006.H03.gz43_257300 |
| M00054967A:D11 | ES 199 | 456203    | 2006.H05.gz43_257332 |
| M00054967D:F08 | ES 199 | 208278    | 2006.I03.gz43_257301 |
| M00054968A:C11 | ES 199 | 592941    | 2006.I06.gz43_257349 |
| M00054969A:B08 | ES 199 | 436888    | 2006.J05.gz43_257334 |
| M00054969A:E05 | ES 199 | 556123    | 2006.J08.gz43_257382 |
| M00054969A:F12 | ES 199 | 554646    | 2006.J11.gz43_257430 |
| M00054969B:F12 | ES 199 | 556552    | 2006.J19.gz43_257558 |
| M00054969C:G09 | ES 199 | 556951    | 2006.J22.gz43_257606 |
| M00054969C:H05 | ES 199 | 557080    | 2006.J23.gz43_257622 |
| M00054969D:D04 | ES 199 | 554379    | 2006.K06.gz43_257351 |
| M00054969D:G11 | ES 199 | 450932    | 2006.K09.gz43_257399 |
| M00054970A:G03 | ES 199 | 470386    | 2006.K18.gz43_257543 |
| M00054970B:B02 | ES 199 | 218113    | 2006.K20.gz43_257575 |
| M00054970C:C08 | ES 199 | 504400    | 2006.L03.gz43_257304 |
| M00054971A:D04 | ES 199 | 557559    | 2006.L20.gz43_257576 |
| M00054971A:D07 | ES 199 | 554275    | 2006.L22.gz43_257608 |
| M00054971C:C11 | ES 199 | 554204    | 2006.M11.gz43_257433 |
| M00054971C:H06 | ES 199 | 596152    | 2006.M18.gz43_257545 |
| M00054971D:F04 | ES 199 | 554643    | 2006.M23.gz43_257625 |
| M00054972B:E06 | ES 199 | 554524    | 2006.N12.gz43_257450 |
| M00054972C:F09 | ES 199 | 552669    | 2006.N18.gz43_257546 |
| M00054972D:A10 | ES 199 | 553983    | 2006.N22.gz43_257610 |
| M00054973B:A10 | ES 199 | 555103    | 2006.O06.gz43_257355 |
| M00054973D:B09 | ES 199 | 555155    | 2006.O16.gz43_257515 |
| M00054974C:A04 | ES 199 | 557780    | 2006.P02.gz43_257292 |
| M00054974D:C11 | ES 199 | 556552    | 2006.P11.gz43_257436 |
| M00054975A:C08 | ES 199 | 559047    | 2006.P12.gz43_257452 |
| M00054975A:E02 | ES 199 | 552941    | 2006.P13.gz43_257468 |
| M00054975B:B06 | ES 199 | 554365    | 2006.P15.gz43_257500 |
| M00054975C:D08 | ES 199 | 549579    | 2006.P22.gz43_257612 |
| M00054975C:E02 | ES 199 | 558707    | 2007.A01.gz43_257645 |
| M00054975C:G06 | ES 199 | 482509    | 2007.A03.gz43_257677 |
| M00054976A:A03 | ES 199 | 551967    | 2007.A05.gz43_257709 |
| M00054976B:C10 | ES 199 | 556512    | 2007.A08.gz43_257757 |
| M00054976C:A03 | ES 199 | 558670    | 2007.A11.gz43_257805 |
| M00054976C:G10 | ES 199 | 476517    | 2007.A19.gz43_257933 |
| M00054976D:F06 | ES 199 | 523332    | 2007.A24.gz43_258013 |
| M00054977C:A09 | ES 199 | 458257    | 2007.B13.gz43_257838 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
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| M00054977C:D08 | ES 199 | 501056    | 2007.B15.gz43_257870 |
| M00054977C:D12 | ES 199 | 556690    | 2007.B16.gz43_257886 |
| M00054977C:F09 | ES 199 | 561112    | 2007.B18.gz43_257918 |
| M00054977D:B06 | ES 199 | 551694    | 2007.B20.gz43_257950 |
| M00054978C:E07 | ES 199 | 556768    | 2007.C04.gz43_257695 |
| M00054978D:H09 | ES 199 | 562750    | 2007.C09.gz43_257775 |
| M00054979A:C09 | ES 199 | 556511    | 2007.C10.gz43_257791 |
| M00054979A:H10 | ES 199 | 550886    | 2007.C12.gz43_257823 |
| M00054979B:G12 | ES 199 | 557054    | 2007.C18.gz43_257919 |
| M00054980C:C07 | ES 199 | 556603    | 2007.D09.gz43_257776 |
| M00054980C:H08 | ES 199 | 550333    | 2007.D11.gz43_257808 |
| M00054980D:H07 | ES 199 | 555197    | 2007.D13.gz43_257840 |
| M00054981B:B09 | ES 199 | 483410    | 2007.D18.gz43_257920 |
| M00054981B:H12 | ES 199 | 467293    | 2007.D21.gz43_257968 |
| M00054981C:A11 | ES 199 | 481243    | 2007.D24.gz43_258016 |
| M00054981D:C03 | ES 199 | 549822    | 2007.E06.gz43_257729 |
| M00054981D:C06 | ES 199 | 556561    | 2007.E08.gz43_257761 |
| M00054982C:A02 | ES 199 | 552437    | 2007.E15.gz43_257873 |
| M00054983A:F08 | ES 199 | 562655    | 2007.E20.gz43_257953 |
| M00054983C:F05 | ES 199 | 170450    | 2007.F04.gz43_257698 |
| M00054983C:G09 | ES 199 | 554123    | 2007.F05.gz43_257714 |
| M00054983D:D05 | ES 199 | 560652    | 2007.F09.gz43_257778 |
| M00054984A:A05 | ES 199 | 555512    | 2007.F10.gz43_257794 |
| M00054984A:D12 | ES 199 | 549581    | 2007.F12.gz43_257826 |
| M00054985A:D09 | ES 199 | 555594    | 2007.G10.gz43_257795 |
| M00054985C:B12 | ES 199 | 543429    | 2007.G17.gz43_257907 |
| M00054985C:D04 | ES 199 | 598589    | 2007.G18.gz43_257923 |
| M00054985D:E03 | ES 199 | 560748    | 2007.G23.gz43_258003 |
| M00054986B:D07 | ES 199 | 555639    | 2007.H07.gz43_257748 |
| M00054986C:D08 | ES 199 | 553787    | 2007.H12.gz43_257828 |
| M00054986D:D11 | ES 199 | 557615    | 2007.H16.gz43_257892 |
| M00054986D:E03 | ES 199 | 554793    | 2007.H17.gz43_257908 |
| M00054987A:A09 | ES 199 | 559053    | 2007.H20.gz43_257956 |
| M00054987B:D06 | ES 199 | 555593    | 2007.I04.gz43_257701 |
| M00054987B:G05 | ES 199 | 550814    | 2007.I05.gz43_257717 |
| M00054987C:A11 | ES 199 | 454463    | 2007.I08.gz43_257765 |
| M00054987C:B12 | ES 199 | 553615    | 2007.I09.gz43_257781 |
| M00054987C:G04 | ES 199 | 556598    | 2007.I10.gz43_257797 |
| M00054987D:D01 | ES 199 | 475624    | 2007.I12.gz43_257829 |
| M00054988C:B08 | ES 199 | 556396    | 2007.I17.gz43_257909 |
| M00054988C:G02 | ES 199 | 557039    | 2007.I19.gz43_257941 |
| M00054989B:C10 | ES 199 | 554098    | 2007.J02.gz43_257670 |
| M00054989B:C11 | ES 199 | 471827    | 2007.J03.gz43_257686 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00054989B:E04 | ES 199 | 556839    | 2007.J04.gz43_257702 |
| M00054989C:C12 | ES 199 | 559580    | 2007.J06.gz43_257734 |
| M00054990A:F10 | ES 199 | 552188    | 2007.J10.gz43_257798 |
| M00054990C:A08 | ES 199 | 556288    | 2007.J17.gz43_257910 |
| M00054990C:E06 | ES 199 | 554818    | 2007.J18.gz43_257926 |
| M00054990D:A06 | ES 199 | 556286    | 2007.J20.gz43_257958 |
|                |        |           |                      |
| M00054990D:F04 | ES 200 | 503452    | 2007.J21.gz43_257974 |
| M00054991B:E11 | ES 200 | 556841    | 2007.K03.gz43_257687 |
| M00054991C:E01 | ES 200 | 454463    | 2007.K08.gz43_257767 |
| M00054991D:B05 | ES 200 | 549334    | 2007.K13.gz43_257847 |
| M00054992A:C08 | ES 200 | 555277    | 2007.K19.gz43_257943 |
| M00054992A:D11 | ES 200 | 551798    | 2007.K20.gz43_257959 |
| M00054992D:C12 | ES 200 | 597957    | 2007.L03.gz43_257688 |
| M00054992D:F06 | ES 200 | 557811    | 2007.L05.gz43_257720 |
| M00054993A:E04 | ES 200 | 554885    | 2007.L07.gz43_257752 |
| M00054993B:H06 | ES 200 | 555658    | 2007.L15.gz43_257880 |
| M00054993C:C10 | ES 200 | 552055    | 2007.L17.gz43_257912 |
| M00054993C:D12 | ES 200 | 559372    | 2007.L20.gz43_257960 |
| M00054993C:G12 | ES 200 | 556019    | 2007.L22.gz43_257992 |
| M00054993C:H05 | ES 200 | 562323    | 2007.L23.gz43_258008 |
| M00054993D:F04 | ES 200 | 557420    | 2007.M02.gz43_257673 |
| M00054994A:E05 | ES 200 | 550833    | 2007.M06.gz43_257737 |
| M00054994B:D11 | ES 200 | 452682    | 2007.M11.gz43_257817 |
| M00054994C:A01 | ES 200 | 476398    | 2007.M13.gz43_257849 |
| M00054994C:B12 | ES 200 | 553252    | 2007.M14.gz43_257865 |
| M00054994C:G06 | ES 200 | 553797    | 2007.M16.gz43_257897 |
| M00054995B:G12 | ES 200 | 554764    | 2007.N06.gz43_257738 |
| M00054995D:D10 | ES 200 | 551150    | 2007.N13.gz43_257850 |
| M00054996A:B01 | ES 200 | 559514    | 2007.N17.gz43_257914 |
| M00054996A:D10 | ES 200 | 549214    | 2007.N20.gz43_257962 |
| M00054996B:C11 | ES 200 | 555958    | 2007.N24.gz43_258026 |
| M00054997A:C02 | ES 200 | 554212    | 2007.O12.gz43_257835 |
| M00054997A:G11 | ES 200 | 476732    | 2007.O15.gz43_257883 |
| M00054997B:F10 | ES 200 | 559096    | 2007.O18.gz43_257931 |
| M00054997C:H03 | ES 200 | 560984    | 2007.O24.gz43_258027 |
| M00054997D:E01 | ES 200 | 554395    | 2007.P06.gz43_257740 |
| M00055000A:H10 | ES 200 | 553915    | 2007.P11.gz43_257820 |
| M00055000B:B04 | ES 200 | 555883    | 2007.P12.gz43_257836 |
| M00055000B:F02 | ES 200 | 553732    | 2007.P13.gz43_257852 |
| M00055000C:F08 | ES 200 | 549516    | 2007.P17.gz43_257916 |
| M00055000D:C03 | ES 200 | 557531    | 2007.P19.gz43_257948 |
| M00055001A:A02 | ES 200 | 591128    | 2007.P24.gz43_258028 |
| M00055001A:B10 | ES 200 | 553064    | 2008.A02.gz43_258047 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055001A:G05 | ES 200 | 554693    | 2008.A09.gz43_258159 |
| M00055001B:H05 | ES 200 | 552613    | 2008.A14.gz43_258239 |
| M00055001C:A11 | ES 200 | 553967    | 2008.A15.gz43_258255 |
| M00055001C:C10 | ES 200 | 335714    | 2008.A17.gz43_258287 |
| M00055001C:G07 | ES 200 | 549690    | 2008.A18.gz43_258303 |
| M00055002B:E07 | ES 200 | 549912    | 2008.B03.gz43_258064 |
| M00055002B:G03 | ES 200 | 556042    | 2008.B05.gz43_258096 |
| M00055002D:A07 | ES 200 | 554379    | 2008.B11.gz43_258192 |
| M00055002D:E04 | ES 200 | 562550    | 2008.B12.gz43_258208 |
| M00055003A:D05 | ES 200 | 553191    | 2008.B15.gz43_258256 |
| M00055003A:D11 | ES 200 | 437580    | 2008.B16.gz43_258272 |
| M00055003A:G04 | ES 200 | 555949    | 2008.B18.gz43_258304 |
| M00055003A:H01 | ES 200 | 601219    | 2008.B19.gz43_258320 |
| M00055003B:E07 | ES 200 | 555639    | 2008.B21.gz43_258352 |
| M00055003B:G11 | ES 200 | 558744    | 2008.B23.gz43_258384 |
| M00055003C:E08 | ES 200 | 559011    | 2008.C04.gz43_258081 |
| M00055003D:F09 | ES 200 | 134237    | 2008.C09.gz43_258161 |
| M00055004B:C12 | ES 200 | 557326    | 2008.C16.gz43_258273 |
| M00055005A:C07 | ES 200 | 552006    | 2008.D02.gz43_258050 |
| M00055005A:E02 | ES 200 | 555701    | 2008.D04.gz43_258082 |
| M00055005C:G04 | ES 200 | 556616    | 2008.D16.gz43_258274 |
| M00055005D:B08 | ES 200 | 460445    | 2008.D17.gz43_258290 |
| M00055005D:C11 | ES 200 | 555289    | 2008.D18.gz43_258306 |
| M00055005D:G04 | ES 200 | 553523    | 2008.D22.gz43_258370 |
| M00055006A:D01 | ES 200 | 559676    | 2008.E02.gz43_258051 |
| M00055006B:A09 | ES 200 | 558212    | 2008.E05.gz43_258099 |
| M00055006B:C08 | ES 200 | 552674    | 2008.E07.gz43_258131 |
| M00055006B:E05 | ES 200 | 347057    | 2008.E10.gz43_258179 |
| M00055006B:G03 | ES 200 | 557026    | 2008.E11.gz43_258195 |
| M00055007C:D01 | ES 200 | 34381     | 2008.F08.gz43_258148 |
| M00055007D:D11 | ES 200 | 480960    | 2008.F13.gz43_258228 |
| M00055008B:E08 | ES 200 | 550497    | 2008.F18.gz43_258308 |
| M00055008B:F03 | ES 200 | 522762    | 2008.F19.gz43_258324 |
| M00055008B:F04 | ES 200 | 558530    | 2008.F20.gz43_258340 |
| M00055008C:F09 | ES 200 | 551444    | 2008.G03.gz43_258069 |
| M00055008C:H10 | ES 200 | 554932    | 2008.G05.gz43_258101 |
| M00055008D:A02 | ES 200 | 554015    | 2008.G06.gz43_258117 |
| M00055008D:E02 | ES 200 | 556041    | 2008.G12.gz43_258213 |
| M00055008D:F05 | ES 200 | 560563    | 2008.G13.gz43_258229 |
| M00055008D:F12 | ES 200 | 449314    | 2008.G14.gz43_258245 |
| M00055008D:H11 | ES 200 | 22308     | 2008.G18.gz43_258309 |
| M00055009C:A07 | ES 200 | 554040    | 2008.H02.gz43_258054 |
| M00055009C:F06 | ES 200 | 549195    | 2008.H08.gz43_258150 |
| M00055009C:F07 | ES 200 | 594994    | 2008.H09.gz43_258166 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055009D:D12 | ES 200 | 558378    | 2008.H10.gz43_258182 |
| M00055010A:B07 | ES 200 | 552977    | 2008.H17.gz43_258294 |
| M00055010A:H05 | ES 200 | 551656    | 2008.H20.gz43_258342 |
| M00055010B:A06 | ES 200 | 460169    | 2008.H22.gz43_258374 |
| M00055010B:C11 | ES 200 | 497513    | 2008.H24.gz43_258406 |
| M00055010C:C10 | ES 200 | 597780    | 2008.I06.gz43_258119 |
| M00055010D:A02 | ES 200 | 555371    | 2008.I09.gz43_258167 |
| M00055010D:D08 | ES 200 | 555512    | 2008.I13.gz43_258231 |
| M00055010D:E08 | ES 200 | 555658    | 2008.I14.gz43_258247 |
| M00055010D:F11 | ES 200 | 600021    | 2008.I15.gz43_258263 |
| M00055011A:B11 | ES 200 | 362109    | 2008.I17.gz43_258295 |
| M00055011A:C06 | ES 200 | 559464    | 2008.I18.gz43_258311 |
| M00055011A:F06 | ES 200 | 556998    | 2008.I21.gz43_258359 |
| M00055011A:G07 | ES 200 | 557115    | 2008.I22.gz43_258375 |
| M00055011A:G12 | ES 200 | 495984    | 2008.I23.gz43_258391 |
| M00055011B:D08 | ES 200 | 549864    | 2008.J01.gz43_258040 |
| M00055011B:F09 | ES 200 | 557308    | 2008.J02.gz43_258056 |
| M00055011C:E04 | ES 200 | 548858    | 2008.J05.gz43_258104 |
| M00055011D:G03 | ES 200 | 557025    | 2008.J09.gz43_258168 |
| M00055012B:A10 | ES 200 | 556320    | 2008.J17.gz43_258296 |
| M00055012B:H12 | ES 200 | 476438    | 2008.J21.gz43_258360 |
| M00055013B:B07 | ES 200 | 497086    | 2008.K10.gz43_258185 |
| M00055013B:H01 | ES 200 | 516018    | 2008.K14.gz43_258249 |
| M00055014B:C12 | ES 200 | 556611    | 2008.L04.gz43_258090 |
| M00055014B:E08 | ES 200 | 605117    | 2008.L05.gz43_258106 |
| M00055014C:F05 | ES 200 | 554084    | 2008.L08.gz43_258154 |
| M00055014C:F11 | ES 200 | 143207    | 2008.L09.gz43_258170 |
| M00055014D:A11 | ES 200 | 451118    | 2008.L11.gz43_258202 |
| M00055015A:C08 | ES 200 | 556530    | 2008.L12.gz43_258218 |
| M00055015A:E04 | ES 200 | 143218    | 2008.L13.gz43_258234 |
| M00055015B:A04 | ES 200 | 556266    | 2008.L17.gz43_258298 |
| M00055015B:E09 | ES 200 | 560097    | 2008.L21.gz43_258362 |
| M00055015D:C09 | ES 200 | 560525    | 2008.M05.gz43_258107 |
| M00055015D:D06 | ES 200 | 562945    | 2008.M07.gz43_258139 |
| M00055015D:G05 | ES 200 | 557059    | 2008.M11.gz43_258203 |
| M00055016A:E04 | ES 200 | 604859    | 2008.M14.gz43_258251 |
| M00055016B:E02 | ES 200 | 494300    | 2008.M17.gz43_258299 |
| M00055016C:F11 | ES 200 | 557000    | 2008.M20.gz43_258347 |
| M00055016C:G04 | ES 200 | 557308    | 2008.M21.gz43_258363 |
| M00055016D:C07 | ES 200 | 555967    | 2008.N01.gz43_258044 |
| M00055016D:C11 | ES 200 | 549723    | 2008.N02.gz43_258060 |
| M00055017A:A11 | ES 200 | 411113    | 2008.N06.gz43_258124 |
| M00055017C:C12 | ES 200 | 556616    | 2008.N13.gz43_258236 |
| M00055017C:D05 | ES 200 | 450010    | 2008.N14.gz43_258252 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055017D:D05 | ES 200 | 453908    | 2008.N17.gz43_258300 |
| M00055017D:E04 | ES 200 | 556790    | 2008.N19.gz43_258332 |
| M00055017D:E08 | ES 200 | 554245    | 2008.N20.gz43_258348 |
| M00055018C:C06 | ES 200 | 495942    | 2008.O07.gz43_258141 |
| M00055018D:D01 | ES 200 | 604179    | 2008.O11.gz43_258205 |
| M00055018D:E05 | ES 200 | 524897    | 2008.O12.gz43_258221 |
| M00055018D:H03 | ES 200 | 551268    | 2008.O16.gz43_258285 |
| M00055019B:B11 | ES 200 | 556488    | 2008.P01.gz43_258046 |
| M00055019B:H10 | ES 200 | 557240    | 2008.P03.gz43_258078 |
| M00055019C:C01 | ES 200 | 556115    | 2008.P04.gz43_258094 |
| M00055019C:G06 | ES 200 | 557121    | 2008.P08.gz43_258158 |
| M00055019D:B02 | ES 200 | 556487    | 2008.P11.gz43_258206 |
| M00055019D:B11 | ES 200 | 556490    | 2008.P12.gz43_258222 |
| M00055020A:G11 | ES 200 | 562142    | 2008.P20.gz43_258350 |
| M00055020B:C12 | ES 200 | 608873    | 2017.A02.gz43_258433 |
| M00055020D:G06 | ES 200 | 557910    | 2017.B02.gz43_258434 |
| M00055021A:F08 | ES 200 | 610986    | 2017.B05.gz43_258482 |
| M00055021B:G09 | ES 200 | 450059    | 2017.B14.gz43_258626 |
| M00055021D:F06 | ES 200 | 549114    | 2017.B22.gz43_258754 |
| M00055022B:F07 | ES 200 | 557759    | 2017.C09.gz43_258547 |
| M00055022C:B12 | ES 200 | 557353    | 2017.C14.gz43_258627 |
| M00055023C:G11 | ES 200 | 561935    | 2017.D08.gz43_258532 |
| M00055023D:G02 | ES 200 | 557049    | 2017.D10.gz43_258564 |
| M00055024A:B04 | ES 200 | 481930    | 2017.D11.gz43_258580 |
| M00055024A:C07 | ES 200 | 560898    | 2017.D14.gz43_258628 |
| M00055024B:E02 | ES 200 | 508671    | 2017.D18.gz43_258692 |
| M00055024B:E03 | ES 200 | 561868    | 2017.D19.gz43_258708 |
| M00055024B:E06 | ES 200 | 529356    | 2017.D21.gz43_258740 |
| M00055024B:F02 | ES 200 | 556933    | 2017.D22.gz43_258756 |
| M00055024D:E09 | ES 200 | 551884    | 2017.E05.gz43_258485 |
| M00055024D:F07 | ES 200 | 559447    | 2017.E06.gz43_258501 |
| M00055024D:G09 | ES 200 | 550815    | 2017.E07.gz43_258517 |
| M00055025A:D11 | ES 200 | 560250    | 2017.E10.gz43_258565 |
| M00055025B:A03 | ES 200 | 550986    | 2017.E11.gz43_258581 |
| M00055026A:G08 | ES 200 | 322123    | 2017.F06.gz43_258502 |
| M00055026C:E07 | ES 200 | 552891    | 2017.F16.gz43_258662 |
| M00055026D:E12 | ES 200 | 556856    | 2017.F19.gz43_258710 |
| M00055027A:D03 | ES 200 | 447438    | 2017.F21.gz43_258742 |
| M00055027A:E04 | ES 200 | 494314    | 2017.F22.gz43_258758 |
| M00055027A:H02 | ES 200 | 557975    | 2017.G01.gz43_258423 |
| M00055027C:G06 | ES 200 | 524100    | 2017.G09.gz43_258551 |
| M00055027D:E08 | ES 200 | 454483    | 2017.G16.gz43_258663 |
| M00055028C:D05 | ES 200 | 390017    | 2017.H04.gz43_258472 |
| M00055028D:A08 | ES 200 | 556258    | 2017.H06.gz43_258504 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055028D:E10 | ES 200 | 560294    | 2017.H10.gz43_258568 |
| M00055029A:A02 | ES 200 | 560621    | 2017.H11.gz43_258584 |
| M00055029C:D05 | ES 200 | 557603    | 2017.I02.gz43_258441 |
| M00055030B:E03 | ES 200 | 549599    | 2017.I11.gz43_258585 |
| M00055030B:H07 | ES 200 | 461850    | 2017.I14.gz43_258633 |
| M00055031B:E02 | ES 200 | 561301    | 2017.J06.gz43_258506 |
| M00055031B:E05 | ES 200 | 557733    | 2017.J08.gz43_258538 |
| M00055031B:H08 | ES 200 | 558004    | 2017.J11.gz43_258586 |
| M00055031C:B11 | ES 200 | 552848    | 2017.J14.gz43_258634 |
| M00055032B:D08 | ES 200 | 561279    | 2017.K06.gz43_258507 |
| M00055032D:B06 | ES 200 | 454014    | 2017.K16.gz43_258667 |
| M00055033B:H01 | ES 200 | 562590    | 2017.L12.gz43_258604 |
| M00055033C:A08 | ES 200 | 557283    | 2017.L13.gz43_258620 |
| M00055033D:D03 | ES 200 | 557010    | 2017.L19.gz43_258716 |
| M00055033D:G01 | ES 200 | 557883    | 2017.L21.gz43_258748 |
| M00055034A:G01 | ES 200 | 460078    | 2017.L23.gz43_258780 |
| M00055034B:G04 | ES 200 | 523495    | 2017.M03.gz43_258461 |
| M00055034D:A10 | ES 200 | 556458    | 2017.M13.gz43_258621 |
| M00055035B:D11 | ES 200 | 408586    | 2017.M22.gz43_258765 |
| M00055035C:G10 | ES 200 | 555651    | 2017.N07.gz43_258526 |
| M00055035D:E07 | ES 200 | 556852    | 2017.N09.gz43_258558 |
| M00055035D:F09 | ES 200 | 558755    | 2017.N12.gz43_258606 |
| M00055036A:H10 | ES 200 | 456183    | 2017.N18.gz43_258702 |
|                |        |           |                      |
| M00055036B:H02 | ES 201 | 561836    | 2017.N23.gz43_258782 |
| M00055036C:G10 | ES 201 | 491127    | 2017.O02.gz43_258447 |
| M00055037C:D01 | ES 201 | 557578    | 2017.O18.gz43_258703 |
| M00055038A:H08 | ES 201 | 134734    | 2017.P07.gz43_258528 |
| M00055039A:G06 | ES 201 | 561438    | 2018.A03.gz43_264190 |
| M00055039B:E02 | ES 201 | 555660    | 2018.A07.gz43_264254 |
| M00055039B:G11 | ES 201 | 555993    | 2018.A08.gz43_264270 |
| M00055039B:G11 | ES 201 | 555993    | 2018.A08.gz43_264654 |
| M00055039B:H10 | ES 201 | 601365    | 2018.A09.gz43_264286 |
| M00055039C:B05 | ES 201 | 529733    | 2018.A11.gz43_264318 |
| M00055039C:D11 | ES 201 | 397338    | 2018.A12.gz43_264718 |
| M00055039D:D07 | ES 201 | 561259    | 2018.A15.gz43_264382 |
| M00055039D:D07 | ES 201 | 561259    | 2018.A15.gz43_264766 |
| M00055040A:C02 | ES 201 | 555399    | 2018.A17.gz43_264414 |
| M00055040A:C02 | ES 201 | 555399    | 2018.A17.gz43_264798 |
| M00055040A:F01 | ES 201 | 555883    | 2018.A18.gz43_264430 |
| M00055040B:F02 | ES 201 | 555751    | 2018.A22.gz43_264878 |
| M00055040C:G08 | ES 201 | 447815    | 2018.A23.gz43_264510 |
| M00055040D:B05 | ES 201 | 555160    | 2018.A24.gz43_264910 |
| M00055040D:G05 | ES 201 | 561761    | 2018.B02.gz43_264175 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055041A:C02 | ES 201 | 555340    | 2018.B05.gz43_264223 |
| M00055041B:B06 | ES 201 | 417274    | 2018.B08.gz43_264655 |
| M00055041B:C10 | ES 201 | 551711    | 2018.B09.gz43_264671 |
| M00055041B:D11 | ES 201 | 555524    | 2018.B10.gz43_264303 |
| M00055041B:D11 | ES 201 | 555524    | 2018.B10.gz43_264687 |
| M00055041B:F04 | ES 201 | 561994    | 2018.B13.gz43_264735 |
| M00055041C:C10 | ES 201 | 554149    | 2018.B17.gz43_264799 |
| M00055041C:H12 | ES 201 | 470617    | 2018.B22.gz43_264495 |
| M00055041D:B07 | ES 201 | 555250    | 2018.B23.gz43_264895 |
| M00055042A:D09 | ES 201 | 561901    | 2018.C07.gz43_264256 |
| M00055042A:F07 | ES 201 | 551328    | 2018.C08.gz43_264656 |
| M00055042B:B09 | ES 201 | 549008    | 2018.C10.gz43_264304 |
| M00055042B:E02 | ES 201 | 555708    | 2018.C12.gz43_264336 |
| M00055042B:E05 | ES 201 | 448098    | 2018.C13.gz43_264736 |
| M00055042B:E08 | ES 201 | 450765    | 2018.C14.gz43_264368 |
| M00055042B:E08 | ES 201 | 450765    | 2018.C14.gz43_264752 |
| M00055042C:B05 | ES 201 | 555172    | 2018.C16.gz43_264400 |
| M00055042C:F04 | ES 201 | 551805    | 2018.C19.gz43_264832 |
| M00055042D:G03 | ES 201 | 555940    | 2018.C21.gz43_264864 |
| M00055042D:H02 | ES 201 | 423588    | 2018.C22.gz43_264880 |
| M00055043A:B06 | ES 201 | 555173    | 2018.C24.gz43_264912 |
| M00055043B:B01 | ES 201 | 555213    | 2018.D07.gz43_264641 |
| M00055043B:G01 | ES 201 | 551714    | 2018.D08.gz43_264273 |
| M00055043D:D10 | ES 201 | 558254    | 2018.D13.gz43_264737 |
| M00055043D:F07 | ES 201 | 553356    | 2018.D14.gz43_264753 |
| M00055044A:A08 | ES 201 | 562949    | 2018.D17.gz43_264417 |
| M00055044A:C02 | ES 201 | 450755    | 2018.D18.gz43_264817 |
| M00055044B:F12 | ES 201 | 549444    | 2018.D21.gz43_264865 |
| M00055045A:C06 | ES 201 | 561911    | 2018.E08.gz43_264658 |
| M00055045A:F03 | ES 201 | 555771    | 2018.E10.gz43_264306 |
| M00055045A:F12 | ES 201 | 553850    | 2018.E11.gz43_264322 |
| M00055045B:A04 | ES 201 | 559699    | 2018.E12.gz43_264338 |
| M00055045B:A04 | ES 201 | 559699    | 2018.E12.gz43_264722 |
| M00055045B:A12 | ES 201 | 347486    | 2018.E13.gz43_264738 |
| M00055045B:C08 | ES 201 | 560720    | 2018.E14.gz43_264370 |
| M00055045B:C08 | ES 201 | 560720    | 2018.E14.gz43_264754 |
| M00055045C:F09 | ES 201 | 555892    | 2018.E18.gz43_264818 |
| M00055045C:H05 | ES 201 | 556158    | 2018.E19.gz43_264450 |
| M00055045D:A01 | ES 201 | 108755    | 2018.E21.gz43_264482 |
| M00055045D:A07 | ES 201 | 551578    | 2018.E22.gz43_264882 |
| M00055045D:D01 | ES 201 | 446664    | 2018.E24.gz43_264914 |
| M00055045D:F10 | ES 201 | 561838    | 2018.F02.gz43_264179 |
| M00055046A:D06 | ES 201 | 562585    | 2018.F05.gz43_264227 |
| M00055046B:C07 | ES 201 | 375380    | 2018.F09.gz43_264291 |



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Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055046B:C12 | ES 201 | 557546    | 2018.F10.gz43_264307 |
| M00055046B:D02 | ES 201 | 559052    | 2018.F11.gz43_264707 |
| M00055046B:E08 | ES 201 | 557420    | 2018.F13.gz43_264739 |
| M00055046B:F06 | ES 201 | 491799    | 2018.F14.gz43_264755 |
| M00055046C:C05 | ES 201 | 558389    | 2018.F18.gz43_264435 |
| M00055046C:E07 | ES 201 | 488970    | 2018.F21.gz43_264867 |
| M00055046C:E11 | ES 201 | 514418    | 2018.F23.gz43_264515 |
| M00055046C:G10 | ES 201 | 551641    | 2018.F24.gz43_264915 |
| M00055047A:E07 | ES 201 | 557735    | 2018.G11.gz43_264324 |
| M00055047A:H04 | ES 201 | 558007    | 2018.G13.gz43_264740 |
| M00055047A:H05 | ES 201 | 558120    | 2018.G14.gz43_264372 |
| M00055047A:H05 | ES 201 | 558120    | 2018.G14.gz43_264756 |
| M00055047B:A10 | ES 201 | 557326    | 2018.G15.gz43_264388 |
| M00055047B:B03 | ES 201 | 289316    | 2018.G16.gz43_264404 |
| M00055047B:B10 | ES 201 | 553603    | 2018.G17.gz43_264804 |
| M00055047B:C03 | ES 201 | 551793    | 2018.G18.gz43_264820 |
| M00055047B:G06 | ES 201 | 556171    | 2018.G22.gz43_264884 |
| M00055047B:G10 | ES 201 | 476268    | 2018.G23.gz43_264900 |
| M00055047C:D11 | ES 201 | 447455    | 2018.H06.gz43_264245 |
| M00055047C:F07 | ES 201 | 554936    | 2018.H07.gz43_264261 |
| M00055047C:F08 | ES 201 | 465207    | 2018.H08.gz43_264277 |
| M00055047C:F08 | ES 201 | 465207    | 2018.H08.gz43_264661 |
| M00055047D:C12 | ES 201 | 555798    | 2018.H11.gz43_264325 |
| M00055048A:A04 | ES 201 | 557279    | 2018.H16.gz43_264405 |
| M00055048A:B12 | ES 201 | 465447    | 2018.H17.gz43_264421 |
| M00055048A:D12 | ES 201 | 557606    | 2018.H19.gz43_264453 |
| M00055048A:F04 | ES 201 | 453893    | 2018.H20.gz43_264469 |
| M00055048C:C06 | ES 201 | 556490    | 2018.I04.gz43_264214 |
| M00055048D:D08 | ES 201 | 419153    | 2018.I08.gz43_264278 |
| M00055048D:D08 | ES 201 | 419153    | 2018.I08.gz43_264662 |
| M00055048D:H04 | ES 201 | 349744    | 2018.I14.gz43_264374 |
| M00055049A:F10 | ES 201 | 559762    | 2018.I19.gz43_264838 |
| M00055049A:G03 | ES 201 | 561046    | 2018.I20.gz43_264854 |
| M00055049B:A01 | ES 201 | 557249    | 2018.I22.gz43_264502 |
| M00055049B:F05 | ES 201 | 553983    | 2018.J01.gz43_264167 |
| M00055049C:H12 | ES 201 | 555010    | 2018.J07.gz43_264263 |
| M00055049C:H12 | ES 201 | 555010    | 2018.J07.gz43_264647 |
| M00055049D:D09 | ES 201 | 561216    | 2018.J09.gz43_264295 |
| M00055049D:D10 | ES 201 | 446739    | 2018.J10.gz43_264695 |
| M00055050A:D11 | ES 201 | 449437    | 2018.J15.gz43_264391 |
| M00055050A:H08 | ES 201 | 556169    | 2018.J16.gz43_264407 |
| M00055050B:E11 | ES 201 | 206098    | 2018.J19.gz43_264455 |
| M00055050B:E11 | ES 201 | 206098    | 2018.J19.gz43_264839 |
| M00055050D:C01 | ES 201 | 559775    | 2018.K06.gz43_264248 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055050D:E03 | ES 201 | 486150    | 2018.K07.gz43_264264 |
| M00055050D:F04 | ES 201 | 557834    | 2018.K08.gz43_264664 |
| M00055051A:B02 | ES 201 | 454810    | 2018.K11.gz43_264328 |
| M00055051A:C09 | ES 201 | 551068    | 2018.K12.gz43_264344 |
| M00055051A:E11 | ES 201 | 432970    | 2018.K14.gz43_264760 |
| M00055051A:G09 | ES 201 | 555340    | 2018.K15.gz43_264392 |
| M00055051A:G09 | ES 201 | 555340    | 2018.K15.gz43_264776 |
| M00055051A:H10 | ES 201 | 551897    | 2018.K16.gz43_264408 |
| M00055051B:B08 | ES 201 | 552641    | 2018.K17.gz43_264424 |
| M00055051B:B08 | ES 201 | 552641    | 2018.K17.gz43_264808 |
| M00055051B:D07 | ES 201 | 557572    | 2018.K19.gz43_264840 |
| M00055051B:G09 | ES 201 | 451027    | 2018.K21.gz43_264872 |
| M00055051C:B05 | ES 201 | 553349    | 2018.K23.gz43_264904 |
| M00055051C:F10 | ES 201 | 554372    | 2018.L04.gz43_264217 |
| M00055051D:D12 | ES 201 | 540000    | 2018.L05.gz43_264233 |
| M00055051D:F01 | ES 201 | 560801    | 2018.L07.gz43_264265 |
| M00055051D:G01 | ES 201 | 557882    | 2018.L08.gz43_264665 |
| M00055052A:F07 | ES 201 | 559246    | 2018.L12.gz43_264345 |
| M00055052A:H11 | ES 201 | 558029    | 2018.L14.gz43_264761 |
| M00055052B:E03 | ES 201 | 551371    | 2018.L17.gz43_264425 |
| M00055052B:E03 | ES 201 | 551371    | 2018.L17.gz43_264809 |
| M00055052C:B12 | ES 201 | 454664    | 2018.L20.gz43_264857 |
| M00055052D:B05 | ES 201 | 557382    | 2018.L24.gz43_264921 |
| M00055052D:G12 | ES 201 | 493261    | 2018.M06.gz43_264250 |
| M00055053B:A02 | ES 201 | 553108    | 2018.M11.gz43_264330 |
| M00055053B:A02 | ES 201 | 553108    | 2018.M11.gz43_264714 |
| M00055053B:C02 | ES 201 | 557525    | 2018.M13.gz43_264362 |
| M00055053B:C02 | ES 201 | 557525    | 2018.M13.gz43_264746 |
| M00055053B:C11 | ES 201 | 558560    | 2018.M14.gz43_264762 |
| M00055053C:A12 | ES 201 | 557345    | 2018.M16.gz43_264794 |
| M00055053C:B03 | ES 201 | 562292    | 2018.M17.gz43_264426 |
| M00055053C:B03 | ES 201 | 562292    | 2018.M17.gz43_264810 |
| M00055053C:F06 | ES 201 | 551334    | 2018.M19.gz43_264842 |
| M00055053D:G04 | ES 201 | 557939    | 2018.N01.gz43_264171 |
| M00055054A:A10 | ES 201 | 447555    | 2018.N03.gz43_264203 |
| M00055054B:E10 | ES 201 | 8997      | 2018.N13.gz43_264363 |
| M00055054B:E10 | ES 201 | 8997      | 2018.N13.gz43_264747 |
| M00055054B:F05 | ES 201 | 562115    | 2018.N15.gz43_264395 |
| M00055054B:G12 | ES 201 | 555082    | 2018.N17.gz43_264427 |
| M00055054C:G10 | ES 201 | 551616    | 2018.N20.gz43_264859 |
| M00055054D:A02 | ES 201 | 557308    | 2018.N21.gz43_264491 |
| M00055054D:E12 | ES 201 | 555057    | 2018.N22.gz43_264507 |
| M00055054D:H07 | ES 201 | 467081    | 2018.N23.gz43_264523 |
| M00055054D:H07 | ES 201 | 467081    | 2018.N23.gz43_264907 |

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| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055055A:B03 | ES 201 | 561963    | 2018.N24.gz43_264539 |
| M00055055B:H11 | ES 201 | 528775    | 2018.O05.gz43_264236 |
| M00055055C:C09 | ES 201 | 498629    | 2018.O09.gz43_264300 |
| M00055055C:C09 | ES 201 | 498629    | 2018.O09.gz43_264684 |
| M00055055C:D02 | ES 201 | 515115    | 2018.O10.gz43_264316 |
| M00055055C:D02 | ES 201 | 515115    | 2018.O10.gz43_264700 |
| M00055055C:E08 | ES 201 | 553975    | 2018.O12.gz43_264348 |
| M00055055C:E08 | ES 201 | 553975    | 2018.O12.gz43_264732 |
| M00055055D:D11 | ES 201 | 551630    | 2018.O15.gz43_264780 |
| M00055055D:E11 | ES 201 | 476342    | 2018.O16.gz43_264412 |
| M00055056A:H09 | ES 201 | 394373    | 2018.O17.gz43_264812 |
| M00055056A:H12 | ES 201 | 463341    | 2018.O18.gz43_264444 |
| M00055056B:G01 | ES 201 | 551561    | 2018.O23.gz43_264908 |
| M00055056C:A05 | ES 201 | 549858    | 2018.P01.gz43_264173 |
| M00055056C:C05 | ES 201 | 557504    | 2018.P04.gz43_264221 |
| M00055056C:D07 | ES 201 | 553012    | 2018.P05.gz43_264237 |
| M00055056C:E10 | ES 201 | 505451    | 2018.P07.gz43_264653 |
| M00055056C:F04 | ES 201 | 562808    | 2018.P08.gz43_264285 |
| M00055056C:H07 | ES 201 | 385531    | 2018.P10.gz43_264701 |
| M00055056D:B06 | ES 201 | 557401    | 2018.P12.gz43_264349 |
| M00055056D:H12 | ES 201 | 556391    | 2018.P16.gz43_264413 |
| M00055057A:A04 | ES 201 | 562272    | 2018.P17.gz43_264429 |
| M00055057A:A04 | ES 201 | 562272    | 2018.P17.gz43_264813 |
| M00055057A:A05 | ES 201 | 553002    | 2018.P18.gz43_264445 |
| M00055057A:A05 | ES 201 | 553002    | 2018.P18.gz43_264829 |
| M00055057A:D10 | ES 201 | 559294    | 2018.P20.gz43_264861 |
| M00055057A:F10 | ES 201 | 451172    | 2018.P22.gz43_264893 |
| M00055057B:B01 | ES 201 | 551544    | 2018.P24.gz43_264541 |
| M00055073D:F06 | ES 201 | 555512    | 2020.A04.gz43_264974 |
| M00055074B:E05 | ES 201 | 455820    | 2020.A14.gz43_265134 |
| M00055074D:B04 | ES 201 | 562229    | 2020.A22.gz43_265262 |
| M00055075A:C09 | ES 201 | 556635    | 2020.B05.gz43_264991 |
| M00055075B:D12 | ES 201 | 556742    | 2020.B12.gz43_265103 |
| M00055075D:D05 | ES 201 | 560069    | 2020.B20.gz43_265231 |
| M00055076A:C06 | ES 201 | 558720    | 2020.C03.gz43_264960 |
| M00055076A:D11 | ES 201 | 555368    | 2020.C05.gz43_264992 |
| M00055076A:G12 | ES 201 | 557024    | 2020.C07.gz43_265024 |
| M00055076B:E08 | ES 201 | 452822    | 2020.C11.gz43_265088 |
| M00055076B:F04 | ES 201 | 549810    | 2020.C12.gz43_265104 |
| M00055076B:H06 | ES 201 | 550701    | 2020.C16.gz43_265168 |
| M00055076C:B10 | ES 201 | 559965    | 2020.C18.gz43_265200 |
| M00055076C:H07 | ES 201 | 557954    | 2020.C20.gz43_265232 |
| M00055076D:F11 | ES 201 | 557783    | 2020.C23.gz43_265280 |
| M00055076D:H11 | ES 201 | 553131    | 2020.D02.gz43_264945 |

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| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055077A:B07 | ES 201 | 549129    | 2020.D04.gz43_264977 |
| M00055077A:H10 | ES 201 | 561707    | 2020.D10.gz43_265073 |
| M00055077D:B01 | ES 201 | 556471    | 2020.E02.gz43_264946 |
| M00055078A:C05 | ES 201 | 142614    | 2020.E08.gz43_265042 |
| M00055078A:E10 | ES 201 | 464905    | 2020.E11.gz43_265090 |
| M00055078A:F01 | ES 201 | 557760    | 2020.E12.gz43_265106 |
| M00055078A:F04 | ES 201 | 553303    | 2020.E13.gz43_265122 |
| M00055078B:F05 | ES 201 | 561489    | 2020.E15.gz43_265154 |
| M00055078D:A07 | ES 201 | 555996    | 2020.E21.gz43_265250 |
| M00055078D:G04 | ES 201 | 495408    | 2020.F06.gz43_265011 |
| M00055079A:H05 | ES 201 | 509505    | 2020.F11.gz43_265091 |
| M00055079B:D02 | ES 201 | 402683    | 2020.F12.gz43_265107 |
| M00055079C:G06 | ES 201 | 558616    | 2020.F15.gz43_265155 |
| M00055079D:A03 | ES 201 | 612961    | 2020.F17.gz43_265187 |
| M00055080A:A07 | ES 201 | 555111    | 2020.F22.gz43_265267 |
| M00055080A:F05 | ES 201 | 451185    | 2020.F24.gz43_265299 |
| M00055080B:G10 | ES 201 | 556040    | 2020.G09.gz43_265060 |
| M00055080D:A01 | ES 201 | 551976    | 2020.G16.gz43_265172 |
| M00055080D:E07 | ES 201 | 553318    | 2020.G19.gz43_265220 |
| M00055080D:E10 | ES 201 | 556357    | 2020.G20.gz43_265236 |
| M00055080D:F01 | ES 201 | 494625    | 2020.G21.gz43_265252 |
|                |        |           |                      |
| M00055081A:E08 | ES 202 | 555616    | 2020.H01.gz43_264933 |
| M00055081B:E10 | ES 202 | 552361    | 2020.H06.gz43_265013 |
| M00055081C:A12 | ES 202 | 555061    | 2020.H11.gz43_265093 |
| M00055081C:G01 | ES 202 | 553372    | 2020.H18.gz43_265205 |
| M00055081C:H04 | ES 202 | 449613    | 2020.H19.gz43_265221 |
| M00055082A:A12 | ES 202 | 552019    | 2020.H24.gz43_265301 |
| M00055082D:E08 | ES 202 | 555710    | 2020.I14.gz43_265142 |
| M00055082D:G01 | ES 202 | 460244    | 2020.I16.gz43_265174 |
| M00055082D:H02 | ES 202 | 465446    | 2020.I17.gz43_265190 |
| M00055083B:E05 | ES 202 | 549607    | 2020.J01.gz43_264935 |
| M00055083B:E07 | ES 202 | 452434    | 2020.J02.gz43_264951 |
| M00055083B:F10 | ES 202 | 552618    | 2020.J03.gz43_264967 |
| M00055083C:C05 | ES 202 | 556497    | 2020.J04.gz43_264983 |
| M00055083C:F05 | ES 202 | 556882    | 2020.J05.gz43_264999 |
| M00055083D:D08 | ES 202 | 556668    | 2020.J11.gz43_265095 |
| M00055084A:E10 | ES 202 | 556802    | 2020.J16.gz43_265175 |
| M00055084A:F10 | ES 202 | 556925    | 2020.J17.gz43_265191 |
| M00055084B:A04 | ES 202 | 558231    | 2020.J18.gz43_265207 |
| M00055084D:B01 | ES 202 | 556446    | 2020.K06.gz43_265016 |
| M00055084D:C09 | ES 202 | 548943    | 2020.K07.gz43_265032 |
| M00055085A:F12 | ES 202 | 500833    | 2020.K12.gz43_265112 |
| M00055085B:D02 | ES 202 | 454910    | 2020.K16.gz43_265176 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055085C:E05 | ES 202 | 561753    | 2020.K19.gz43_265224 |
| M00055085D:D10 | ES 202 | 451134    | 2020.K21.gz43_265256 |
| M00055085D:F03 | ES 202 | 556881    | 2020.K23.gz43_265288 |
| M00055085D:G09 | ES 202 | 555725    | 2020.K24.gz43_265304 |
| M00055086A:B10 | ES 202 | 492893    | 2020.L01.gz43_264937 |
| M00055086A:C09 | ES 202 | 556542    | 2020.L02.gz43_264953 |
| M00055086B:D10 | ES 202 | 557476    | 2020.L06.gz43_265017 |
| M00055086D:C07 | ES 202 | 551342    | 2020.L13.gz43_265129 |
| M00055086D:H07 | ES 202 | 557214    | 2020.L16.gz43_265177 |
| M00055087B:C03 | ES 202 | 122169    | 2020.L22.gz43_265273 |
| M00055087B:C05 | ES 202 | 451885    | 2020.L23.gz43_265289 |
| M00055087D:D08 | ES 202 | 453756    | 2020.M08.gz43_265050 |
| M00055088C:B02 | ES 202 | 450352    | 2020.M20.gz43_265242 |
| M00055088C:D01 | ES 202 | 561975    | 2020.M22.gz43_265274 |
| M00055088C:D02 | ES 202 | 557747    | 2020.M23.gz43_265290 |
| M00055088D:A01 | ES 202 | 551283    | 2020.N02.gz43_264955 |
| M00055088D:B08 | ES 202 | 561422    | 2020.N04.gz43_264987 |
| M00055089A:H06 | ES 202 | 557454    | 2020.N09.gz43_265067 |
| M00055089B:C01 | ES 202 | 554084    | 2020.N12.gz43_265115 |
| M00055089C:B06 | ES 202 | 556465    | 2020.N16.gz43_265179 |
| M00055089C:D06 | ES 202 | 560507    | 2020.N19.gz43_265227 |
| M00055090A:F02 | ES 202 | 560080    | 2020.N22.gz43_265275 |
| M00055090C:B03 | ES 202 | 556408    | 2020.O04.gz43_264988 |
| M00055090C:C12 | ES 202 | 556559    | 2020.O06.gz43_265020 |
| M00055090C:D01 | ES 202 | 556675    | 2020.O07.gz43_265036 |
| M00055090C:G06 | ES 202 | 451370    | 2020.O09.gz43_265068 |
| M00055090D:E03 | ES 202 | 497086    | 2020.O14.gz43_265148 |
| M00055090D:F03 | ES 202 | 98869     | 2020.O17.gz43_265196 |
| M00055091A:C09 | ES 202 | 598101    | 2020.O23.gz43_265292 |
| M00055091A:F05 | ES 202 | 459581    | 2020.P04.gz43_264989 |
| M00055091B:A07 | ES 202 | 555126    | 2020.P07.gz43_265037 |
| M00055091B:C11 | ES 202 | 555418    | 2020.P08.gz43_265053 |
| M00055091C:B04 | ES 202 | 468262    | 2020.P12.gz43_265117 |
| M00055091C:D11 | ES 202 | 559071    | 2020.P15.gz43_265165 |
| M00055091C:G11 | ES 202 | 561593    | 2020.P18.gz43_265213 |
| M00055091D:A03 | ES 202 | 554828    | 2020.P21.gz43_265261 |
| M00055092B:G09 | ES 202 | 637966    | 2029.A15.gz43_265534 |
| M00055093A:E09 | ES 202 | 562542    | 2029.B05.gz43_265375 |
| M00055093A:F07 | ES 202 | 562768    | 2029.B06.gz43_265391 |
| M00055093B:G08 | ES 202 | 562881    | 2029.B14.gz43_265519 |
| M00055094B:B11 | ES 202 | 562307    | 2029.C11.gz43_265472 |
| M00055094C:C10 | ES 202 | 402488    | 2029.C21.gz43_265632 |
| M00055094D:F09 | ES 202 | 491127    | 2029.D06.gz43_265393 |
| M00055095A:D08 | ES 202 | 98484     | 2029.D11.gz43_265473 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055096A:G08 | ES 202 | 551967    | 2029.E09.gz43_265442 |
| M00055096C:C03 | ES 202 | 554496    | 2029.E16.gz43_265554 |
| M00055096D:F02 | ES 202 | 553380    | 2029.E22.gz43_265650 |
| M00055097A:G06 | ES 202 | 455820    | 2029.F06.gz43_265395 |
| M00055097B:B12 | ES 202 | 453533    | 2029.F09.gz43_265443 |
| M00055097B:F08 | ES 202 | 562719    | 2029.F10.gz43_265459 |
| M00055098D:A09 | ES 202 | 561215    | 2029.G03.gz43_265348 |
| M00055099A:G05 | ES 202 | 558118    | 2029.G11.gz43_265476 |
| M00055100A:C05 | ES 202 | 555330    | 2029.H07.gz43_265413 |
| M00055100B:F11 | ES 202 | 558186    | 2029.H15.gz43_265541 |
| M00055100C:E03 | ES 202 | 559125    | 2029.H22.gz43_265653 |
| M00055100C:F11 | ES 202 | 452349    | 2029.I01.gz43_265318 |
| M00055100C:H06 | ES 202 | 562989    | 2029.I02.gz43_265334 |
| M00055100D:B02 | ES 202 | 562243    | 2029.I03.gz43_265350 |
| M00055102A:E11 | ES 202 | 560628    | 2029.I20.gz43_265622 |
| M00055102B:B03 | ES 202 | 560111    | 2029.I21.gz43_265638 |
| M00055103A:H11 | ES 202 | 561144    | 2029.J16.gz43_265559 |
| M00055103C:B07 | ES 202 | 558511    | 2029.J20.gz43_265623 |
| M00055103C:D05 | ES 202 | 556613    | 2029.J21.gz43_265639 |
| M00055103C:G03 | ES 202 | 560898    | 2029.J22.gz43_265655 |
| M00055104B:F09 | ES 202 | 553548    | 2029.K14.gz43_265528 |
| M00055104D:E02 | ES 202 | 455878    | 2029.K20.gz43_265624 |
| M00055105A:A05 | ES 202 | 559955    | 2029.K23.gz43_265672 |
| M00055105D:B06 | ES 202 | 552704    | 2029.L07.gz43_265417 |
| M00055106A:E04 | ES 202 | 560575    | 2029.L15.gz43_265545 |
| M00055106C:B06 | ES 202 | 454499    | 2029.L22.gz43_265657 |
| M00055109C:G10 | ES 202 | 455529    | 2029.O01.gz43_265324 |
| M00055110A:C03 | ES 202 | 561426    | 2029.O08.gz43_265436 |
| M00055110A:C05 | ES 202 | 394189    | 2029.O09.gz43_265452 |
| M00055111A:F10 | ES 202 | 562748    | 2029.P01.gz43_265325 |
| M00055111C:B07 | ES 202 | 558186    | 2029.P05.gz43_265389 |
| M00055111D:F10 | ES 202 | 518735    | 2029.P16.gz43_265565 |
| M00055113A:G08 | ES 202 | 562822    | 2030.A11.gz43_265854 |
| M00055113B:F02 | ES 202 | 562714    | 2030.A12.gz43_265870 |
| M00055113C:F09 | ES 202 | 551734    | 2030.A14.gz43_265902 |
| M00055114A:E02 | ES 202 | 561741    | 2030.A18.gz43_265966 |
| M00055115C:F04 | ES 202 | 549948    | 2030.B23.gz43_266047 |
| M00055115C:G09 | ES 202 | 449035    | 2030.C02.gz43_265712 |
| M00055116A:C07 | ES 202 | 453274    | 2030.C12.gz43_265872 |
| M00055116A:H06 | ES 202 | 453692    | 2030.C19.gz43_265984 |
| M00055117A:G08 | ES 202 | 312036    | 2030.D10.gz43_265841 |
| M00055117C:C03 | ES 202 | 549591    | 2030.D16.gz43_265937 |
| M00055117C:F02 | ES 202 | 561265    | 2030.D17.gz43_265953 |
| M00055118B:A09 | ES 202 | 554737    | 2030.D24.gz43_266065 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055118C:B03 | ES 202 | 452525    | 2030.E03.gz43_265730 |
| M00055118D:B04 | ES 202 | 560868    | 2030.E05.gz43_265762 |
| M00055119B:B08 | ES 202 | 560077    | 2030.E12.gz43_265874 |
| M00055119D:F08 | ES 202 | 526334    | 2030.E14.gz43_265906 |
| M00055120B:F12 | ES 202 | 556310    | 2030.E19.gz43_265986 |
| M00055120C:F10 | ES 202 | 560506    | 2030.E22.gz43_266034 |
| M00055120D:H07 | ES 202 | 63602     | 2030.F01.gz43_265699 |
| M00055121D:H11 | ES 202 | 507660    | 2030.F09.gz43_265827 |
| M00055122C:B12 | ES 202 | 448905    | 2030.F16.gz43_265939 |
| M00055123A:D12 | ES 202 | 560399    | 2030.F23.gz43_266051 |
| M00055124A:F01 | ES 202 | 479732    | 2030.G08.gz43_265812 |
| M00055124B:A11 | ES 202 | 558060    | 2030.G11.gz43_265860 |
| M00055124C:C12 | ES 202 | 553142    | 2030.G17.gz43_265956 |
| M00055124D:A09 | ES 202 | 451089    | 2030.G23.gz43_266052 |
| M00055124D:B10 | ES 202 | 553841    | 2030.H02.gz43_265717 |
| M00055125A:A02 | ES 202 | 538830    | 2030.H05.gz43_265765 |
| M00055125B:F01 | ES 202 | 558534    | 2030.H09.gz43_265829 |
| M00055125C:H03 | ES 202 | 557895    | 2030.H16.gz43_265941 |
| M00055125D:E02 | ES 202 | 558452    | 2030.H20.gz43_266005 |
| M00055126C:G05 | ES 202 | 561685    | 2030.I06.gz43_265782 |
| M00055127B:A01 | ES 202 | 559938    | 2030.I12.gz43_265878 |
| M00055128A:C10 | ES 202 | 554233    | 2030.J01.gz43_265703 |
| M00055128B:B08 | ES 202 | 561679    | 2030.J06.gz43_265783 |
| M00055128B:B12 | ES 202 | 528369    | 2030.J07.gz43_265799 |
| M00055128B:E12 | ES 202 | 461653    | 2030.J10.gz43_265847 |
| M00055128B:G01 | ES 202 | 407964    | 2030.J13.gz43_265895 |
| M00055128C:E03 | ES 202 | 554989    | 2030.J16.gz43_265943 |
| M00055128D:C11 | ES 202 | 561279    | 2030.J22.gz43_266039 |
| M00055128D:D04 | ES 202 | 557615    | 2030.K01.gz43_265704 |
| M00055129A:B03 | ES 202 | 486683    | 2030.K05.gz43_265768 |
| M00055129B:H07 | ES 202 | 558024    | 2030.K18.gz43_265976 |
| M00055129C:H08 | ES 202 | 452759    | 2030.K24.gz43_266072 |
| M00055129D:C02 | ES 202 | 452775    | 2030.L03.gz43_265737 |
| M00055129D:F11 | ES 202 | 488030    | 2030.L06.gz43_265785 |
| M00055130A:D10 | ES 202 | 557610    | 2030.L11.gz43_265865 |
| M00055130B:D07 | ES 202 | 380636    | 2030.L17.gz43_265961 |
| M00055130D:F08 | ES 202 | 66678     | 2030.M06.gz43_265786 |
| M00055131A:A04 | ES 202 | 518007    | 2030.M10.gz43_265850 |
| M00055131A:D07 | ES 202 | 449454    | 2030.M13.gz43_265898 |
| M00055131C:H12 | ES 202 | 562822    | 2030.N04.gz43_265755 |
| M00055132B:B12 | ES 202 | 288134    | 2030.N12.gz43_265883 |
| M00055132D:E07 | ES 202 | 610269    | 2030.N21.gz43_266027 |
| M00055132D:E10 | ES 202 | 557719    | 2030.N22.gz43_266043 |
| M00055132D:F05 | ES 202 | 548991    | 2030.N23.gz43_266059 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055133B:B06 | ES 202 | 400628    | 2030.O05.gz43_265772 |
| M00055133B:E04 | ES 202 | 557741    | 2030.O07.gz43_265804 |
| M00055133B:E08 | ES 202 | 557747    | 2030.O08.gz43_265820 |
| M00055133B:F07 | ES 202 | 451618    | 2030.O10.gz43_265852 |
| M00055133C:C06 | ES 202 | 562760    | 2030.O13.gz43_265900 |
| M00055133C:G07 | ES 202 | 451392    | 2030.O15.gz43_265932 |
| M00055133C:H11 | ES 202 | 558015    | 2030.O17.gz43_265964 |
| M00055133D:A02 | ES 202 | 477295    | 2030.O18.gz43_265980 |
| M00055133D:F02 | ES 202 | 451391    | 2030.O22.gz43_266044 |
| M00055134A:C03 | ES 202 | 553871    | 2030.O24.gz43_266076 |
| M00055134C:A01 | ES 202 | 557284    | 2030.P11.gz43_265869 |
| M00055134C:B01 | ES 202 | 551068    | 2030.P12.gz43_265885 |
| M00055134C:E09 | ES 202 | 557710    | 2030.P13.gz43_265901 |
| M00055134D:B03 | ES 202 | 407077    | 2030.P17.gz43_265965 |
| M00055135A:D08 | ES 202 | 557549    | 2030.P23.gz43_266061 |
| M00055135A:E07 | ES 202 | 562683    | 2031.A01.gz43_266078 |
| M00055135A:H10 | ES 202 | 562725    | 2031.A02.gz43_266094 |
| M00055136C:F11 | ES 202 | 562449    | 2031.A24.gz43_266446 |
| M00055136D:D09 | ES 202 | 558768    | 2031.B05.gz43_266143 |
| M00055137A:E05 | ES 202 | 550047    | 2031.B10.gz43_266223 |
| M00055137B:B11 | ES 202 | 556630    | 2031.B14.gz43_266287 |
| M00055137B:F12 | ES 202 | 558477    | 2031.B16.gz43_266319 |
| M00055138A:E08 | ES 202 | 558463    | 2031.C04.gz43_266128 |
| M00055138A:F01 | ES 202 | 558544    | 2031.C05.gz43_266144 |
| M00055138A:G08 | ES 202 | 558619    | 2031.C06.gz43_266160 |
| M00055138B:H12 | ES 202 | 446873    | 2031.C11.gz43_266240 |
| M00055138C:A07 | ES 202 | 556328    | 2031.C12.gz43_266256 |
| M00055139B:E10 | ES 202 | 553969    | 2031.D09.gz43_266209 |
| M00055139B:G03 | ES 202 | 558230    | 2031.D11.gz43_266241 |
| M00055140A:G07 | ES 202 | 557893    | 2031.D22.gz43_266417 |
| M00055143B:C11 | ES 202 | 555754    | 2031.G02.gz43_266100 |
| M00055144A:A11 | ES 202 | 561245    | 2031.G05.gz43_266148 |
| M00055144A:E09 | ES 202 | 450630    | 2031.G06.gz43_266164 |
| M00055144B:A12 | ES 202 | 506372    | 2031.G11.gz43_266244 |
| M00055145B:F03 | ES 202 | 490032    | 2031.H18.gz43_266357 |
| M00055146A:B12 | ES 202 | 211273    | 2031.I04.gz43_266134 |
| M00055146B:E09 | ES 202 | 562000    | 2031.I10.gz43_266230 |
| M00055148A:E06 | ES 202 | 289328    | 2031.J13.gz43_266279 |
|                |        |           |                      |
| M00055149B:F09 | ES 203 | 557783    | 2031.K05.gz43_266152 |
| M00055149C:A11 | ES 203 | 553500    | 2031.K08.gz43_266200 |
| M00055150D:C06 | ES 203 | 160289    | 2031.L10.gz43_266233 |
| M00055151A:C10 | ES 203 | 557522    | 2031.L14.gz43_266297 |
| M00055151A:F10 | ES 203 | 610893    | 2031.L18.gz43_266361 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055152A:B05 | ES 203 | 490846    | 2031.M08.gz43_266202 |
| M00055152A:E09 | ES 203 | 549739    | 2031.M12.gz43_266266 |
| M00055152B:A03 | ES 203 | 557250    | 2031.M16.gz43_266330 |
| M00055152D:C03 | ES 203 | 468257    | 2031.N04.gz43_266139 |
| M00055152D:H09 | ES 203 | 497493    | 2031.N07.gz43_266187 |
| M00055154D:F06 | ES 203 | 549930    | 2031.O05.gz43_266156 |
| M00055154D:G12 | ES 203 | 524721    | 2031.O06.gz43_266172 |
| M00055155D:B02 | ES 203 | 557708    | 2031.O24.gz43_266460 |
| M00055156A:D02 | ES 203 | 561624    | 2031.P06.gz43_266173 |
| M00055156B:C11 | ES 203 | 558645    | 2031.P08.gz43_266205 |
| M00055156C:A08 | ES 203 | 558007    | 2031.P09.gz43_266221 |
| M00055156C:D06 | ES 203 | 561558    | 2031.P12.gz43_266269 |
| M00055156D:A02 | ES 203 | 561178    | 2031.P15.gz43_266317 |
| M00055157A:B04 | ES 203 | 556288    | 2031.P17.gz43_266349 |
| M00055157C:C11 | ES 203 | 559389    | 2032.A05.gz43_266526 |
| M00055158A:D09 | ES 203 | 555210    | 2032.A10.gz43_266606 |
| M00055158D:C01 | ES 203 | 394772    | 2032.A19.gz43_266750 |
| M00055158D:D10 | ES 203 | 560296    | 2032.A20.gz43_266766 |
| M00055159B:B08 | ES 203 | 561308    | 2032.B04.gz43_266511 |
| M00055159B:G09 | ES 203 | 561911    | 2032.B12.gz43_266639 |
| M00055159C:B02 | ES 203 | 215005    | 2032.B16.gz43_266703 |
| M00055159D:F09 | ES 203 | 554885    | 2032.B24.gz43_266831 |
| M00055160C:D02 | ES 203 | 553537    | 2032.C10.gz43_266608 |
| M00055161A:C02 | ES 203 | 561507    | 2032.C21.gz43_266784 |
| M00055161A:E05 | ES 203 | 558395    | 2032.C23.gz43_266816 |
| M00055161B:A07 | ES 203 | 452901    | 2032.D06.gz43_266545 |
| M00055161D:H03 | ES 203 | 447386    | 2032.D23.gz43_266817 |
| M00055162A:B03 | ES 203 | 562881    | 2032.E01.gz43_266466 |
| M00055162A:C12 | ES 203 | 451458    | 2032.E03.gz43_266498 |
| M00055162A:G12 | ES 203 | 561994    | 2032.E07.gz43_266562 |
| M00055162B:B04 | ES 203 | 561413    | 2032.E10.gz43_266610 |
| M00055162C:E12 | ES 203 | 553877    | 2032.E19.gz43_266754 |
| M00055162C:G03 | ES 203 | 323165    | 2032.E20.gz43_266770 |
| M00055162D:B01 | ES 203 | 555883    | 2032.E22.gz43_266802 |
| M00055162D:G04 | ES 203 | 561918    | 2032.E24.gz43_266834 |
| M00055163B:F07 | ES 203 | 561876    | 2032.F10.gz43_266611 |
| M00055164C:C10 | ES 203 | 558965    | 2032.G11.gz43_266628 |
| M00055164D:C05 | ES 203 | 555200    | 2032.G18.gz43_266740 |
| M00055165A:F05 | ES 203 | 559389    | 2032.G24.gz43_266836 |
| M00055165B:G09 | ES 203 | 559562    | 2032.H05.gz43_266533 |
| M00055165C:H08 | ES 203 | 558917    | 2032.H07.gz43_266565 |
| M00055165D:C03 | ES 203 | 553797    | 2032.H10.gz43_266613 |
| M00055166B:D07 | ES 203 | 452874    | 2032.H19.gz43_266757 |
| M00055166C:G01 | ES 203 | 488108    | 2032.H23.gz43_266821 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055166D:F02 | ES 203 | 559464    | 2032.I04.gz43_266518 |
| M00055166D:F09 | ES 203 | 555418    | 2032.I05.gz43_266534 |
| M00055167A:A02 | ES 203 | 493261    | 2032.I07.gz43_266566 |
| M00055167B:A08 | ES 203 | 557961    | 2032.I12.gz43_266646 |
| M00055167B:H07 | ES 203 | 415538    | 2032.I15.gz43_266694 |
| M00055167D:B05 | ES 203 | 558858    | 2032.I19.gz43_266758 |
| M00055168B:F11 | ES 203 | 557316    | 2032.J06.gz43_266551 |
| M00055169B:F04 | ES 203 | 559355    | 2032.J19.gz43_266759 |
| M00055169B:H08 | ES 203 | 550674    | 2032.J21.gz43_266791 |
| M00055169D:A11 | ES 203 | 558720    | 2032.K02.gz43_266488 |
| M00055170A:A09 | ES 203 | 557209    | 2032.K06.gz43_266552 |
| M00055170A:A11 | ES 203 | 558755    | 2032.K07.gz43_266568 |
| M00055170B:B06 | ES 203 | 558022    | 2032.K12.gz43_266648 |
| M00055170D:B09 | ES 203 | 494198    | 2032.L01.gz43_266473 |
| M00055171C:C01 | ES 203 | 450566    | 2032.L23.gz43_266825 |
| M00055172A:A01 | ES 203 | 550085    | 2032.M02.gz43_266490 |
| M00055172A:C09 | ES 203 | 559015    | 2032.M05.gz43_266538 |
| M00055172A:F03 | ES 203 | 554604    | 2032.M06.gz43_266554 |
| M00055172B:B04 | ES 203 | 558900    | 2032.M09.gz43_266602 |
| M00055172B:H07 | ES 203 | 409262    | 2032.M12.gz43_266650 |
| M00055172D:D04 | ES 203 | 559057    | 2032.M15.gz43_266698 |
| M00055172D:D07 | ES 203 | 556542    | 2032.M16.gz43_266714 |
| M00055172D:F12 | ES 203 | 551693    | 2032.M19.gz43_266762 |
| M00055174A:H12 | ES 203 | 555202    | 2032.M24.gz43_266842 |
| M00055174B:B04 | ES 203 | 550175    | 2032.N01.gz43_266475 |
| M00055176A:A02 | ES 203 | 553047    | 2032.N11.gz43_266635 |
| M00055176A:B03 | ES 203 | 553713    | 2032.N13.gz43_266667 |
| M00055176D:H01 | ES 203 | 559752    | 2032.N24.gz43_266843 |
| M00055177A:F05 | ES 203 | 551475    | 2032.O01.gz43_266476 |
| M00055177D:F07 | ES 203 | 562989    | 2032.O17.gz43_266732 |
| M00055178A:C07 | ES 203 | 558981    | 2032.O20.gz43_266780 |
| M00055178A:D03 | ES 203 | 559088    | 2032.O22.gz43_266812 |
| M00055179A:G08 | ES 203 | 561975    | 2041.A02.gz43_266862 |
| M00055179A:H11 | ES 203 | 479851    | 2041.A03.gz43_266878 |
| M00055179B:C07 | ES 203 | 450289    | 2041.A04.gz43_266894 |
| M00055179B:D05 | ES 203 | 559050    | 2041.A05.gz43_266910 |
| M00055179B:G07 | ES 203 | 559000    | 2041.A08.gz43_266958 |
| M00055179C:F11 | ES 203 | 559383    | 2041.A10.gz43_266990 |
| M00055179C:H02 | ES 203 | 559710    | 2041.A11.gz43_267006 |
| M00055179D:C10 | ES 203 | 555739    | 2041.A14.gz43_267054 |
| M00055181A:E01 | ES 203 | 549829    | 2041.A20.gz43_267150 |
| M00055181A:G02 | ES 203 | 557644    | 2041.A22.gz43_267182 |
| M00055181A:H01 | ES 203 | 559194    | 2041.A24.gz43_267214 |
| M00055181B:A10 | ES 203 | 478511    | 2041.B01.gz43_266847 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055181B:E06 | ES 203 | 549472    | 2041.B03.gz43_266879 |
| M00055181C:B07 | ES 203 | 476199    | 2041.B07.gz43_266943 |
| M00055181C:B12 | ES 203 | 553002    | 2041.B08.gz43_266959 |
| M00055181C:C09 | ES 203 | 561513    | 2041.B09.gz43_266975 |
| M00055181C:D06 | ES 203 | 562569    | 2041.B11.gz43_267007 |
| M00055181C:H01 | ES 203 | 561351    | 2041.B17.gz43_267103 |
| M00055181D:D05 | ES 203 | 473742    | 2041.B21.gz43_267167 |
| M00055182A:D07 | ES 203 | 554520    | 2041.C05.gz43_266912 |
| M00055182B:C07 | ES 203 | 226324    | 2041.C08.gz43_266960 |
| M00055182B:F05 | ES 203 | 556632    | 2041.C09.gz43_266976 |
| M00055182C:E09 | ES 203 | 556881    | 2041.C17.gz43_267104 |
| M00055182D:E06 | ES 203 | 559333    | 2041.C21.gz43_267168 |
| M00055182D:H08 | ES 203 | 557961    | 2041.C23.gz43_267200 |
| M00055183A:C06 | ES 203 | 456517    | 2041.D01.gz43_266849 |
| M00055183A:E10 | ES 203 | 557714    | 2041.D02.gz43_266865 |
| M00055183C:A02 | ES 203 | 562840    | 2041.D08.gz43_266961 |
| M00055183C:D07 | ES 203 | 561963    | 2041.D12.gz43_267025 |
| M00055184A:G02 | ES 203 | 557935    | 2041.D19.gz43_267137 |
| M00055184B:H01 | ES 203 | 560308    | 2041.E02.gz43_266866 |
| M00055184C:C07 | ES 203 | 558212    | 2041.E04.gz43_266898 |
| M00055184C:D02 | ES 203 | 409612    | 2041.E05.gz43_266914 |
| M00055184C:D11 | ES 203 | 551879    | 2041.E07.gz43_266946 |
| M00055184C:F01 | ES 203 | 561513    | 2041.E08.gz43_266962 |
| M00055185A:B01 | ES 203 | 451761    | 2041.E12.gz43_267026 |
| M00055185A:G11 | ES 203 | 558582    | 2041.E14.gz43_267058 |
| M00055185B:B01 | ES 203 | 559883    | 2041.E16.gz43_267090 |
| M00055185C:B01 | ES 203 | 411113    | 2041.E22.gz43_267186 |
| M00055185D:A02 | ES 203 | 561687    | 2041.F03.gz43_266883 |
| M00055185D:D11 | ES 203 | 555394    | 2041.F06.gz43_266931 |
| M00055185D:F07 | ES 203 | 477046    | 2041.F08.gz43_266963 |
| M00055185D:H01 | ES 203 | 502343    | 2041.F10.gz43_266995 |
| M00055186A:D04 | ES 203 | 552629    | 2041.F11.gz43_267011 |
| M00055186A:E08 | ES 203 | 557867    | 2041.F12.gz43_267027 |
| M00055186C:A01 | ES 203 | 459103    | 2041.F15.gz43_267075 |
| M00055186C:A02 | ES 203 | 481136    | 2041.F16.gz43_267091 |
| M00055187A:F02 | ES 203 | 516484    | 2041.G07.gz43_266948 |
| M00055187A:F06 | ES 203 | 492627    | 2041.G08.gz43_266964 |
| M00055187A:G02 | ES 203 | 552629    | 2041.G09.gz43_266980 |
| M00055187B:C01 | ES 203 | 364462    | 2041.G11.gz43_267012 |
| M00055187C:C02 | ES 203 | 551855    | 2041.G15.gz43_267076 |
| M00055187C:E07 | ES 203 | 549588    | 2041.G17.gz43_267108 |
| M00055187D:A08 | ES 203 | 557298    | 2041.G19.gz43_267140 |
| M00055187D:F01 | ES 203 | 560294    | 2041.G23.gz43_267204 |
| M00055187D:G11 | ES 203 | 557895    | 2041.H01.gz43_266853 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055188A:G11 | ES 203 | 559610    | 2041.H06.gz43_266933 |
| M00055188A:H10 | ES 203 | 187704    | 2041.H07.gz43_266949 |
| M00055188B:E06 | ES 203 | 559262    | 2041.H08.gz43_266965 |
| M00055188B:G06 | ES 203 | 555649    | 2041.H09.gz43_266981 |
| M00055188C:A08 | ES 203 | 448046    | 2041.H12.gz43_267029 |
| M00055188C:F08 | ES 203 | 549665    | 2041.H14.gz43_267061 |
| M00055188D:D05 | ES 203 | 559146    | 2041.H19.gz43_267141 |
| M00055188D:F10 | ES 203 | 561685    | 2041.H20.gz43_267157 |
| M00055188D:H03 | ES 203 | 559825    | 2041.H21.gz43_267173 |
| M00055189A:C11 | ES 203 | 558463    | 2041.H24.gz43_267221 |
| M00055189B:B02 | ES 203 | 452094    | 2041.I04.gz43_266902 |
| M00055189B:B12 | ES 203 | 560080    | 2041.I06.gz43_266934 |
| M00055189C:C01 | ES 203 | 413915    | 2041.I10.gz43_266998 |
| M00055190A:A05 | ES 203 | 523332    | 2041.I15.gz43_267078 |
| M00055190A:F11 | ES 203 | 455814    | 2041.I19.gz43_267142 |
| M00055190C:G08 | ES 203 | 560859    | 2041.I24.gz43_267222 |
| M00055191B:A10 | ES 203 | 488613    | 2041.J05.gz43_266919 |
| M00055191B:E04 | ES 203 | 560674    | 2041.J07.gz43_266951 |
| M00055191C:C06 | ES 203 | 447412    | 2041.J10.gz43_266999 |
| M00055191D:C05 | ES 203 | 560213    | 2041.J13.gz43_267047 |
| M00055192A:A09 | ES 203 | 559883    | 2041.J15.gz43_267079 |
| M00055192C:A03 | ES 203 | 499903    | 2041.J22.gz43_267191 |
| M00055192C:D04 | ES 203 | 491992    | 2041.K01.gz43_266856 |
| M00055192C:E04 | ES 203 | 550874    | 2041.K02.gz43_266872 |
| M00055192C:H06 | ES 203 | 558326    | 2041.K05.gz43_266920 |
| M00055193A:A08 | ES 203 | 560003    | 2041.K11.gz43_267016 |
| M00055193A:C06 | ES 203 | 451544    | 2041.K14.gz43_267064 |
| M00055193B:A08 | ES 203 | 624044    | 2041.K18.gz43_267128 |
| M00055193C:C11 | ES 203 | 539142    | 2041.L02.gz43_266873 |
| M00055193C:E10 | ES 203 | 504880    | 2041.L03.gz43_266889 |
| M00055193D:G07 | ES 203 | 552977    | 2041.L08.gz43_266969 |
| M00055194A:A01 | ES 203 | 495591    | 2041.L10.gz43_267001 |
| M00055194A:E07 | ES 203 | 558413    | 2041.L13.gz43_267049 |
| M00055194B:C01 | ES 203 | 559234    | 2041.L15.gz43_267081 |
| M00055194B:G04 | ES 203 | 513168    | 2041.L16.gz43_267097 |
| M00055194D:C05 | ES 203 | 549911    | 2041.M02.gz43_266874 |
| M00055195A:B08 | ES 203 | 549304    | 2041.M09.gz43_266986 |
| M00055195A:C10 | ES 203 | 550704    | 2041.M11.gz43_267018 |
| M00055195A:E07 | ES 203 | 143218    | 2041.M12.gz43_267034 |
| M00055195B:B09 | ES 203 | 450623    | 2041.M14.gz43_267066 |
| M00055195B:C04 | ES 203 | 614369    | 2041.M15.gz43_267082 |
| M00055195C:F09 | ES 203 | 561659    | 2041.N01.gz43_266859 |
| M00055195C:H05 | ES 203 | 561830    | 2041.N02.gz43_266875 |
| M00055195D:B10 | ES 203 | 555742    | 2041.N06.gz43_266939 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055195D:E11 | ES 203 | 550652    | 2041.N09.gz43_266987 |
| M00055196A:C04 | ES 203 | 495074    | 2041.N12.gz43_267035 |
| M00055196A:E01 | ES 203 | 551977    | 2041.N13.gz43_267051 |
| M00055196A:H07 | ES 203 | 553237    | 2041.N15.gz43_267083 |
| M00055196B:A09 | ES 203 | 552879    | 2041.N17.gz43_267115 |
| M00055196B:C06 | ES 203 | 562336    | 2041.N18.gz43_267131 |
| M00055196C:B07 | ES 203 | 456697    | 2041.N24.gz43_267227 |
| M00055196D:A10 | ES 203 | 556538    | 2041.O08.gz43_266972 |
| M00055196D:F07 | ES 203 | 481231    | 2041.O10.gz43_267004 |
| M00055196D:H02 | ES 203 | 562569    | 2041.O11.gz43_267020 |
| M00055197B:A10 | ES 203 | 559885    | 2041.O16.gz43_267100 |
|                |        |           |                      |
| M00055197B:B06 | ES 204 | 558642    | 2041.O18.gz43_267132 |
| M00055197C:D10 | ES 204 | 625988    | 2041.O21.gz43_267180 |
| M00055198A:E05 | ES 204 | 460727    | 2041.P06.gz43_266941 |
| M00055198B:H08 | ES 204 | 490154    | 2041.P09.gz43_266989 |
| M00055198C:C12 | ES 204 | 551374    | 2041.P11.gz43_267021 |
| M00055198C:F02 | ES 204 | 557852    | 2041.P13.gz43_267053 |
| M00055198C:G07 | ES 204 | 561753    | 2041.P14.gz43_267069 |
| M00055198D:A12 | ES 204 | 551415    | 2041.P16.gz43_267101 |
| M00055198D:B08 | ES 204 | 556343    | 2041.P17.gz43_267117 |
| M00055198D:G01 | ES 204 | 550782    | 2041.P20.gz43_267165 |
| M00055198D:G03 | ES 204 | 491260    | 2041.P21.gz43_267181 |
| M00055219B:B04 | ES 204 | 554627    | 2043.A06.gz43_259273 |
| M00055219C:C10 | ES 204 | 556790    | 2043.A14.gz43_259401 |
| M00055219C:H06 | ES 204 | 558652    | 2043.A17.gz43_259449 |
| M00055220B:H06 | ES 204 | 490414    | 2043.B06.gz43_259274 |
| M00055220D:G07 | ES 204 | 557965    | 2043.B12.gz43_259370 |
| M00055221A:D10 | ES 204 | 549634    | 2043.B17.gz43_259450 |
| M00055221D:A06 | ES 204 | 558055    | 2043.C07.gz43_259291 |
| M00055221D:H08 | ES 204 | 467710    | 2043.C11.gz43_259355 |
| M00055222A:A06 | ES 204 | 460493    | 2043.C12.gz43_259371 |
| M00055222A:C08 | ES 204 | 464067    | 2043.C13.gz43_259387 |
| M00055222B:A01 | ES 204 | 552086    | 2043.C18.gz43_259467 |
| M00055222B:A06 | ES 204 | 451966    | 2043.C19.gz43_259483 |
| M00055222D:B11 | ES 204 | 558185    | 2043.D03.gz43_259228 |
| M00055223B:C04 | ES 204 | 552521    | 2043.D13.gz43_259388 |
| M00055223D:F10 | ES 204 | 621635    | 2043.D23.gz43_259548 |
| M00055223D:H03 | ES 204 | 559764    | 2043.D24.gz43_259564 |
| M00055224B:E12 | ES 204 | 561289    | 2043.E04.gz43_259245 |
| M00055225B:H01 | ES 204 | 560717    | 2043.E24.gz43_259565 |
| M00055225C:E08 | ES 204 | 550632    | 2043.F03.gz43_259230 |
| M00055225D:G11 | ES 204 | 491240    | 2043.F09.gz43_259326 |
| M00055226B:F10 | ES 204 | 556123    | 2043.F20.gz43_259502 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055226C:A11 | ES 204 | 489275    | 2043.F23.gz43_259550 |
| M00055226C:H05 | ES 204 | 558679    | 2043.G08.gz43_259311 |
| M00055227C:D02 | ES 204 | 550815    | 2043.H09.gz43_259328 |
| M00055227D:E07 | ES 204 | 550571    | 2043.H16.gz43_259440 |
| M00055227D:G10 | ES 204 | 559101    | 2043.H17.gz43_259456 |
| M00055228B:E07 | ES 204 | 554181    | 2043.H21.gz43_259520 |
| M00055229B:E12 | ES 204 | 452598    | 2043.I12.gz43_259377 |
| M00055229B:H11 | ES 204 | 559729    | 2043.I15.gz43_259425 |
| M00055229C:D01 | ES 204 | 559053    | 2043.I17.gz43_259457 |
| M00055229D:D07 | ES 204 | 543540    | 2043.I22.gz43_259537 |
| M00055230A:H01 | ES 204 | 551677    | 2043.J03.gz43_259234 |
| M00055231D:G01 | ES 204 | 560986    | 2043.J22.gz43_259538 |
| M00055232A:A09 | ES 204 | 460680    | 2043.J23.gz43_259554 |
| M00055232C:D04 | ES 204 | 557411    | 2043.K14.gz43_259411 |
| M00055233C:F09 | ES 204 | 559447    | 2043.L05.gz43_259268 |
| M00055233D:G11 | ES 204 | 559884    | 2043.L15.gz43_259428 |
| M00055234A:G12 | ES 204 | 552430    | 2043.L18.gz43_259476 |
| M00055235B:C01 | ES 204 | 374281    | 2043.M12.gz43_259381 |
| M00055236A:B01 | ES 204 | 466887    | 2043.M19.gz43_259493 |
| M00055236B:C07 | ES 204 | 450193    | 2043.M23.gz43_259557 |
| M00055236C:E05 | ES 204 | 451720    | 2043.N03.gz43_259238 |
| M00055236D:E04 | ES 204 | 558422    | 2043.N06.gz43_259286 |
| M00055236D:E10 | ES 204 | 557140    | 2043.N07.gz43_259302 |
| M00055238D:D10 | ES 204 | 557656    | 2043.O23.gz43_259559 |
| M00055239B:C05 | ES 204 | 558230    | 2043.P05.gz43_259272 |
| M00055239C:F08 | ES 204 | 481362    | 2043.P10.gz43_259352 |
| M00055239D:C01 | ES 204 | 552019    | 2043.P13.gz43_259400 |
| M00055239D:G04 | ES 204 | 557676    | 2043.P16.gz43_259448 |
| M00055240A:B07 | ES 204 | 562317    | 2043.P19.gz43_259496 |
| M00055240B:E12 | ES 204 | 552249    | 2043.P24.gz43_259576 |
| M00055240C:A03 | ES 204 | 558093    | 2044.A03.gz43_259613 |
| M00055240C:D06 | ES 204 | 43349     | 2044.A04.gz43_259629 |
| M00055240D:D12 | ES 204 | 497119    | 2044.A10.gz43_259725 |
| M00055241A:C06 | ES 204 | 450025    | 2044.A15.gz43_259805 |
| M00055241D:F10 | ES 204 | 616134    | 2044.B03.gz43_259614 |
| M00055242D:E02 | ES 204 | 541784    | 2044.B22.gz43_259918 |
| M00055243D:C06 | ES 204 | 486787    | 2044.C16.gz43_259823 |
| M00055244A:C06 | ES 204 | 238121    | 2044.C20.gz43_259887 |
| M00055244B:F02 | ES 204 | 558500    | 2044.D01.gz43_259584 |
| M00055244B:G10 | ES 204 | 38280     | 2044.D04.gz43_259632 |
| M00055244D:C07 | ES 204 | 560317    | 2044.D09.gz43_259712 |
| M00055244D:D09 | ES 204 | 549493    | 2044.D10.gz43_259728 |
| M00055244D:G08 | ES 204 | 549889    | 2044.D13.gz43_259776 |
| M00055245B:H01 | ES 204 | 629002    | 2044.D20.gz43_259888 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055245C:D04 | ES 204 | 560507    | 2044.D22.gz43_259920 |
| M00055245D:A04 | ES 204 | 558355    | 2044.E03.gz43_259617 |
| M00055245D:D01 | ES 204 | 551305    | 2044.E06.gz43_259665 |
| M00055246A:C01 | ES 204 | 560317    | 2044.E09.gz43_259713 |
| M00055246A:E10 | ES 204 | 560669    | 2044.E10.gz43_259729 |
| M00055246B:C04 | ES 204 | 560204    | 2044.E14.gz43_259793 |
| M00055246B:D10 | ES 204 | 484086    | 2044.E15.gz43_259809 |
| M00055246C:A10 | ES 204 | 557389    | 2044.E16.gz43_259825 |
| M00055246C:F08 | ES 204 | 561579    | 2044.E17.gz43_259841 |
| M00055247B:A11 | ES 204 | 607430    | 2044.F04.gz43_259634 |
| M00055247C:B01 | ES 204 | 557389    | 2044.F05.gz43_259650 |
| M00055248A:F10 | ES 204 | 558461    | 2044.F14.gz43_259794 |
| M00055248B:B03 | ES 204 | 560099    | 2044.F15.gz43_259810 |
| M00055248C:B11 | ES 204 | 555340    | 2044.F22.gz43_259922 |
| M00055248D:B12 | ES 204 | 556829    | 2044.G02.gz43_259603 |
| M00055249B:G08 | ES 204 | 550830    | 2044.G18.gz43_259859 |
| M00055249C:B12 | ES 204 | 560059    | 2044.G22.gz43_259923 |
| M00055250B:A05 | ES 204 | 504415    | 2044.H06.gz43_259668 |
| M00055250B:G09 | ES 204 | 552357    | 2044.H09.gz43_259716 |
| M00055250C:F03 | ES 204 | 616196    | 2044.H10.gz43_259732 |
| M00055251A:B09 | ES 204 | 488143    | 2044.H18.gz43_259860 |
| M00055251C:D01 | ES 204 | 549052    | 2044.I06.gz43_259669 |
| M00055251C:H07 | ES 204 | 523732    | 2044.I11.gz43_259749 |
| M00055251D:B09 | ES 204 | 464205    | 2044.I14.gz43_259797 |
| M00055251D:H11 | ES 204 | 500737    | 2044.I18.gz43_259861 |
| M00055252A:H09 | ES 204 | 558670    | 2044.I24.gz43_259957 |
| M00055252B:D07 | ES 204 | 558785    | 2044.J03.gz43_259622 |
| M00055252C:B04 | ES 204 | 557256    | 2044.J05.gz43_259654 |
| M00055252C:E02 | ES 204 | 159419    | 2044.J08.gz43_259702 |
| M00055252D:C10 | ES 204 | 447380    | 2044.J14.gz43_259798 |
| M00055253A:C07 | ES 204 | 560205    | 2044.J17.gz43_259846 |
| M00055253D:C03 | ES 204 | 560261    | 2044.K01.gz43_259591 |
| M00055254A:E02 | ES 204 | 557928    | 2044.K05.gz43_259655 |
| M00055254C:A06 | ES 204 | 493359    | 2044.K11.gz43_259751 |
| M00055254D:B10 | ES 204 | 558861    | 2044.K15.gz43_259815 |
| M00055255A:F11 | ES 204 | 494130    | 2044.K24.gz43_259959 |
| M00055255B:A10 | ES 204 | 450405    | 2044.L01.gz43_259592 |
| M00055255B:F05 | ES 204 | 558512    | 2044.L04.gz43_259640 |
| M00055256A:D12 | ES 204 | 562256    | 2044.L16.gz43_259832 |
| M00055256B:C07 | ES 204 | 562256    | 2044.L21.gz43_259912 |
| M00055256B:G05 | ES 204 | 557928    | 2044.L24.gz43_259960 |
| M00055257A:D01 | ES 204 | 549456    | 2044.M16.gz43_259833 |
| M00055257B:B10 | ES 204 | 558134    | 2044.M17.gz43_259849 |
| M00055257D:A11 | ES 204 | 488574    | 2044.N04.gz43_259642 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055257D:E02 | ES 204 | 554246    | 2044.N07.gz43_259690 |
| M00055258A:C07 | ES 204 | 423884    | 2044.N10.gz43_259738 |
| M00055259A:G06 | ES 204 | 138927    | 2044.O06.gz43_259675 |
| M00055259B:G11 | ES 204 | 558559    | 2044.O14.gz43_259803 |
| M00055259C:G10 | ES 204 | 476373    | 2044.O17.gz43_259851 |
| M00055260B:A05 | ES 204 | 558098    | 2044.P04.gz43_259644 |
| M00055260B:H06 | ES 204 | 460049    | 2044.P08.gz43_259708 |
| M00055260C:A11 | ES 204 | 560144    | 2044.P09.gz43_259724 |
| M00055260C:A12 | ES 204 | 557734    | 2044.P10.gz43_259740 |
| M00055260D:D04 | ES 204 | 562926    | 2044.P20.gz43_259900 |
| M00055261A:D11 | ES 204 | 558357    | 2053.A03.gz43_260006 |
| M00055261B:G12 | ES 204 | 550863    | 2053.A12.gz43_260150 |
| M00055261D:D09 | ES 204 | 128962    | 2053.A20.gz43_260278 |
| M00055262A:C05 | ES 204 | 558281    | 2053.B02.gz43_259991 |
| M00055262B:A11 | ES 204 | 558120    | 2053.B05.gz43_260039 |
| M00055262B:C01 | ES 204 | 554373    | 2053.B06.gz43_260055 |
| M00055262C:B08 | ES 204 | 558052    | 2053.B11.gz43_260135 |
| M00055262C:F05 | ES 204 | 446557    | 2053.B14.gz43_260183 |
| M00055263C:D02 | ES 204 | 478087    | 2053.C10.gz43_260120 |
| M00055263C:F10 | ES 204 | 450242    | 2053.C13.gz43_260168 |
| M00055263C:G09 | ES 204 | 505858    | 2053.C15.gz43_260200 |
| M00055263D:C03 | ES 204 | 554000    | 2053.C19.gz43_260264 |
| M00055264A:F03 | ES 204 | 511276    | 2053.D05.gz43_260041 |
| M00055264B:E06 | ES 204 | 556019    | 2053.D08.gz43_260089 |
| M00055264B:H12 | ES 204 | 450507    | 2053.D10.gz43_260121 |
| M00055264D:A03 | ES 204 | 551272    | 2053.D14.gz43_260185 |
| M00055264D:E09 | ES 204 | 557713    | 2053.D18.gz43_260249 |
| M00055265A:G01 | ES 204 | 34381     | 2053.E02.gz43_259994 |
| M00055265A:G07 | ES 204 | 555564    | 2053.E03.gz43_260010 |
| M00055265C:A04 | ES 204 | 512721    | 2053.E10.gz43_260122 |
| M00055265C:D09 | ES 204 | 560520    | 2053.E13.gz43_260170 |
| M00055265C:E01 | ES 204 | 560678    | 2053.E14.gz43_260186 |
| M00055265C:F01 | ES 204 | 557561    | 2053.E15.gz43_260202 |
| M00055266A:H08 | ES 204 | 559910    | 2053.F03.gz43_260011 |
| M00055266B:C12 | ES 204 | 550074    | 2053.F05.gz43_260043 |
| M00055266D:C09 | ES 204 | 557561    | 2053.F14.gz43_260187 |
| M00055267A:D01 | ES 204 | 487961    | 2053.F21.gz43_260299 |
| M00055267A:G11 | ES 204 | 511847    | 2053.F22.gz43_260315 |
| M00055267B:B06 | ES 204 | 561666    | 2053.F24.gz43_260347 |
| M00055267D:G08 | ES 204 | 562269    | 2053.G18.gz43_260252 |
| M00055268B:D12 | ES 204 | 556447    | 2053.H02.gz43_259997 |
| M00055268D:G09 | ES 204 | 448450    | 2053.H15.gz43_260205 |
| M00055270D:B05 | ES 204 | 475578    | 2053.I15.gz43_260206 |
| M00055271A:C05 | ES 204 | 562992    | 2053.I19.gz43_260270 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055271B:C01 | ES 204 | 553665    | 2053.I24.gz43_260350 |
| M00055271B:D02 | ES 204 | 446964    | 2053.J01.gz43_259983 |
| M00055272D:E04 | ES 204 | 559321    | 2053.K01.gz43_259984 |
| M00055274B:A10 | ES 204 | 562314    | 2053.K21.gz43_260304 |
| M00055274C:C06 | ES 204 | 558867    | 2053.L05.gz43_260049 |
| M00055274C:F02 | ES 204 | 452506    | 2053.L10.gz43_260129 |
| M00055274C:F10 | ES 204 | 557115    | 2053.L11.gz43_260145 |
| M00055274D:A11 | ES 204 | 560957    | 2053.L12.gz43_260161 |
| M00055274D:B10 | ES 204 | 549052    | 2053.L15.gz43_260209 |
| M00055274D:C10 | ES 204 | 558263    | 2053.L18.gz43_260257 |
| M00055275B:H06 | ES 204 | 558360    | 2053.M03.gz43_260018 |
| M00055275D:E12 | ES 204 | 560621    | 2053.M12.gz43_260162 |
| M00055275D:G09 | ES 204 | 362109    | 2053.M13.gz43_260178 |
| M00055275D:H08 | ES 204 | 562871    | 2053.M15.gz43_260210 |
| M00055276B:C09 | ES 204 | 560278    | 2053.M20.gz43_260290 |
| M00055277D:A02 | ES 204 | 555564    | 2053.N05.gz43_260051 |
| M00055279A:E03 | ES 204 | 551798    | 2053.O05.gz43_260052 |
| M00055279B:D02 | ES 204 | 480960    | 2053.O09.gz43_260116 |
| M00055280A:C09 | ES 204 | 560538    | 2053.O18.gz43_260260 |
| M00055280C:G09 | ES 204 | 560977    | 2053.P05.gz43_260053 |
| M00055281A:E04 | ES 204 | 558437    | 2053.P20.gz43_260293 |
| M00055281A:F08 | ES 204 | 558513    | 2053.P21.gz43_260309 |
| M00055281B:D04 | ES 204 | 481958    | 2053.P22.gz43_260325 |
| M00055282A:A01 | ES 204 | 559113    | 2054.A07.gz43_267326 |
| M00055286A:H08 | ES 204 | 559728    | 2054.C19.gz43_267520 |
| M00055288B:D01 | ES 204 | 559127    | 2054.E01.gz43_267234 |
| M00055288B:D08 | ES 204 | 399121    | 2054.E02.gz43_267250 |
|                |        |           |                      |
| M00055288C:A09 | ES 205 | 549575    | 2054.E07.gz43_267330 |
| M00055288D:A03 | ES 205 | 558730    | 2054.E14.gz43_267442 |
| M00055294B:C03 | ES 205 | 484617    | 2054.H17.gz43_267493 |
| M00055294B:D04 | ES 205 | 559043    | 2054.H18.gz43_267509 |
| M00055294B:G01 | ES 205 | 559531    | 2054.H20.gz43_267541 |
| M00055296A:C05 | ES 205 | 561779    | 2054.I14.gz43_267446 |
| M00055296C:E08 | ES 205 | 558446    | 2054.I21.gz43_267558 |
| M00055297A:C01 | ES 205 | 558940    | 2054.I24.gz43_267606 |
| M00055297D:C02 | ES 205 | 500337    | 2054.J13.gz43_267431 |
| M00055300A:B06 | ES 205 | 551930    | 2054.K20.gz43_267544 |
| M00055300C:F11 | ES 205 | 559460    | 2054.L01.gz43_267241 |
| M00055302B:B10 | ES 205 | 624133    | 2054.M03.gz43_267274 |
| M00055302B:F07 | ES 205 | 561096    | 2054.M05.gz43_267306 |
| M00055305C:D08 | ES 205 | 560420    | 2054.O18.gz43_267516 |
| M00055305D:F07 | ES 205 | 448519    | 2054.O23.gz43_267596 |
| M00055307B:G08 | ES 205 | 451834    | 2054.P22.gz43_267581 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055308D:C09 | ES 205 | 551811    | 2055.A23.gz43_267966 |
| M00055308D:E10 | ES 205 | 559965    | 2055.B01.gz43_267615 |
| M00055310B:E02 | ES 205 | 138470    | 2055.B20.gz43_267919 |
| M00055312A:D11 | ES 205 | 559112    | 2055.C08.gz43_267728 |
| M00055312A:E10 | ES 205 | 440707    | 2055.C09.gz43_267744 |
| M00055312B:F01 | ES 205 | 559452    | 2055.C15.gz43_267840 |
| M00055312D:A09 | ES 205 | 558813    | 2055.C23.gz43_267968 |
| M00055313D:E10 | ES 205 | 560369    | 2055.D17.gz43_267873 |
| M00055314B:F03 | ES 205 | 430146    | 2055.D22.gz43_267953 |
| M00055314B:G07 | ES 205 | 551912    | 2055.D23.gz43_267969 |
| M00055315C:A09 | ES 205 | 617813    | 2055.E13.gz43_267810 |
| M00055316B:B10 | ES 205 | 477757    | 2055.E22.gz43_267954 |
| M00055317C:D04 | ES 205 | 555359    | 2055.F12.gz43_267795 |
| M00055319B:H06 | ES 205 | 559794    | 2055.G19.gz43_267908 |
| M00055319C:C03 | ES 205 | 553709    | 2055.G22.gz43_267956 |
| M00055319C:C07 | ES 205 | 552857    | 2055.G23.gz43_267972 |
| M00055320A:F04 | ES 205 | 553986    | 2055.H09.gz43_267749 |
| M00055320D:E09 | ES 205 | 558105    | 2055.H20.gz43_267925 |
| M00055321A:A04 | ES 205 | 555200    | 2055.I01.gz43_267622 |
| M00055321A:D11 | ES 205 | 558161    | 2055.I03.gz43_267654 |
| M00055321B:B10 | ES 205 | 558890    | 2055.I05.gz43_267686 |
| M00055321D:C12 | ES 205 | 559027    | 2055.I13.gz43_267814 |
| M00055322A:C08 | ES 205 | 558254    | 2055.I23.gz43_267974 |
| M00055322C:G11 | ES 205 | 559574    | 2055.J04.gz43_267671 |
| M00055322D:A01 | ES 205 | 552673    | 2055.J05.gz43_267687 |
| M00055322D:C12 | ES 205 | 446900    | 2055.J07.gz43_267719 |
| M00055323D:A12 | ES 205 | 562236    | 2055.K01.gz43_267624 |
| M00055324C:H10 | ES 205 | 448677    | 2055.K13.gz43_267816 |
| M00055324D:B02 | ES 205 | 555277    | 2055.K15.gz43_267848 |
| M00055325A:E12 | ES 205 | 473343    | 2055.K21.gz43_267944 |
| M00055325A:H02 | ES 205 | 554585    | 2055.K22.gz43_267960 |
| M00055330C:F05 | ES 205 | 451118    | 2055.M20.gz43_267930 |
| M00055330D:C05 | ES 205 | 558980    | 2055.M22.gz43_267962 |
| M00055330D:H12 | ES 205 | 559776    | 2055.N01.gz43_267627 |
| M00055333C:F12 | ES 205 | 451429    | 2055.N22.gz43_267963 |
| M00055333C:H07 | ES 205 | 555349    | 2055.N23.gz43_267979 |
| M00055334C:E11 | ES 205 | 560538    | 2055.O16.gz43_267868 |
| M00055334D:G07 | ES 205 | 554176    | 2055.O21.gz43_267948 |
| M00055335A:B06 | ES 205 | 497493    | 2055.O24.gz43_267996 |
| M00055335D:A03 | ES 205 | 472188    | 2055.P12.gz43_267805 |
| M00055336D:B03 | ES 205 | 558562    | 2056.A04.gz43_268046 |
| M00055337D:B10 | ES 205 | 558867    | 2056.A15.gz43_268222 |
| M00055338A:A02 | ES 205 | 453004    | 2056.A16.gz43_268238 |
| M00055338A:A03 | ES 205 | 559971    | 2056.A17.gz43_268254 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055338A:H10 | ES 205 | 561116    | 2056.A21.gz43_268318 |
| M00055338B:F06 | ES 205 | 560714    | 2056.A23.gz43_268350 |
| M00055338C:F03 | ES 205 | 551912    | 2056.B04.gz43_268047 |
| M00055338C:G04 | ES 205 | 552430    | 2056.B05.gz43_268063 |
| M00055338C:H06 | ES 205 | 561024    | 2056.B07.gz43_268095 |
| M00055338D:E11 | ES 205 | 512657    | 2056.B09.gz43_268127 |
| M00055339A:B06 | ES 205 | 560091    | 2056.B10.gz43_268143 |
| M00055339B:D10 | ES 205 | 562883    | 2056.B13.gz43_268191 |
| M00055340B:C03 | ES 205 | 449405    | 2056.C06.gz43_268080 |
| M00055340B:E06 | ES 205 | 560652    | 2056.C07.gz43_268096 |
| M00055340C:D01 | ES 205 | 560369    | 2056.C09.gz43_268128 |
| M00055340D:D01 | ES 205 | 560370    | 2056.C11.gz43_268160 |
| M00055340D:F08 | ES 205 | 560717    | 2056.C13.gz43_268192 |
| M00055341B:A01 | ES 205 | 558653    | 2056.C16.gz43_268240 |
| M00055341B:C07 | ES 205 | 560254    | 2056.C19.gz43_268288 |
| M00055341C:C01 | ES 205 | 560252    | 2056.C24.gz43_268368 |
| M00055341C:F04 | ES 205 | 627386    | 2056.D03.gz43_268033 |
| M00055341C:G12 | ES 205 | 552669    | 2056.D04.gz43_268049 |
| M00055341D:H07 | ES 205 | 552357    | 2056.D08.gz43_268113 |
| M00055342A:E08 | ES 205 | 562576    | 2056.D14.gz43_268209 |
| M00055342B:C08 | ES 205 | 403419    | 2056.D19.gz43_268289 |
| M00055342C:E03 | ES 205 | 496460    | 2056.D23.gz43_268353 |
| M00055342C:H06 | ES 205 | 561124    | 2056.E03.gz43_268034 |
| M00055342D:B02 | ES 205 | 163336    | 2056.E04.gz43_268050 |
| M00055342D:F07 | ES 205 | 627139    | 2056.E08.gz43_268114 |
| M00055342D:H05 | ES 205 | 561124    | 2056.E11.gz43_268162 |
| M00055343A:C09 | ES 205 | 560199    | 2056.E13.gz43_268194 |
| M00055343A:D08 | ES 205 | 560377    | 2056.E14.gz43_268210 |
| M00055343A:G03 | ES 205 | 560868    | 2056.E16.gz43_268242 |
| M00055343C:B11 | ES 205 | 400047    | 2056.E19.gz43_268290 |
| M00055343C:G09 | ES 205 | 560939    | 2056.E21.gz43_268322 |
| M00055343C:G10 | ES 205 | 560939    | 2056.E22.gz43_268338 |
| M00055343D:C12 | ES 205 | 560259    | 2056.F01.gz43_268003 |
| M00055343D:G03 | ES 205 | 560932    | 2056.F05.gz43_268067 |
| M00055343D:G06 | ES 205 | 554101    | 2056.F06.gz43_268083 |
| M00055343D:H04 | ES 205 | 559296    | 2056.F07.gz43_268099 |
| M00055344A:G11 | ES 205 | 448285    | 2056.F12.gz43_268179 |
| M00055344B:A12 | ES 205 | 618311    | 2056.F13.gz43_268195 |
| M00055344C:C08 | ES 205 | 491240    | 2056.F18.gz43_268275 |
| M00055344C:E04 | ES 205 | 557264    | 2056.F19.gz43_268291 |
| M00055344C:F09 | ES 205 | 558890    | 2056.F20.gz43_268307 |
| M00055344C:H09 | ES 205 | 559806    | 2056.F24.gz43_268371 |
| M00055344D:A09 | ES 205 | 550063    | 2056.G01.gz43_268004 |
| M00055345A:D05 | ES 205 | 559049    | 2056.G05.gz43_268068 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055345B:B03 | ES 205 | 558769    | 2056.G06.gz43_268084 |
| M00055345B:F03 | ES 205 | 559375    | 2056.G09.gz43_268132 |
| M00055345D:A04 | ES 205 | 551305    | 2056.G16.gz43_268244 |
| M00055345D:D01 | ES 205 | 559087    | 2056.G18.gz43_268276 |
| M00055345D:D12 | ES 205 | 559093    | 2056.G19.gz43_268292 |
| M00055345D:E02 | ES 205 | 559246    | 2056.G20.gz43_268308 |
| M00055345D:E05 | ES 205 | 558334    | 2056.G21.gz43_268324 |
| M00055346A:B01 | ES 205 | 560088    | 2056.G24.gz43_268372 |
| M00055346A:E12 | ES 205 | 418482    | 2056.H03.gz43_268037 |
| M00055346B:G03 | ES 205 | 509505    | 2056.H08.gz43_268117 |
| M00055347A:C03 | ES 205 | 559004    | 2056.H16.gz43_268245 |
| M00055347C:F01 | ES 205 | 559359    | 2056.I04.gz43_268054 |
| M00055348B:A02 | ES 205 | 559963    | 2056.I17.gz43_268262 |
| M00055348B:B05 | ES 205 | 103123    | 2056.I18.gz43_268278 |
| M00055348B:F05 | ES 205 | 552258    | 2056.I22.gz43_268342 |
| M00055348B:H05 | ES 205 | 550973    | 2056.I23.gz43_268358 |
| M00055348D:A01 | ES 205 | 559857    | 2056.J04.gz43_268055 |
| M00055349A:F07 | ES 205 | 549041    | 2056.J11.gz43_268167 |
| M00055349C:G07 | ES 205 | 458618    | 2056.J19.gz43_268295 |
| M00055349C:H12 | ES 205 | 562849    | 2056.J20.gz43_268311 |
| M00055349D:F02 | ES 205 | 556011    | 2056.J24.gz43_268375 |
| M00055350A:F01 | ES 205 | 556216    | 2056.K06.gz43_268088 |
| M00055350B:B12 | ES 205 | 449927    | 2056.K09.gz43_268136 |
| M00055350B:D09 | ES 205 | 560695    | 2056.K11.gz43_268168 |
| M00055350C:G11 | ES 205 | 553875    | 2056.K15.gz43_268232 |
| M00055351A:A08 | ES 205 | 553505    | 2056.K21.gz43_268328 |
| M00055351A:C09 | ES 205 | 560311    | 2056.K22.gz43_268344 |
| M00055351B:D11 | ES 205 | 560498    | 2056.L01.gz43_268009 |
| M00055351B:H12 | ES 205 | 512014    | 2056.L02.gz43_268025 |
| M00055352B:E01 | ES 205 | 555095    | 2056.L24.gz43_268377 |
| M00055352B:E06 | ES 205 | 560544    | 2056.M01.gz43_268010 |
| M00055352B:H05 | ES 205 | 557372    | 2056.M04.gz43_268058 |
| M00055352C:A07 | ES 205 | 553591    | 2056.M06.gz43_268090 |
| M00055353B:B09 | ES 205 | 455379    | 2056.M13.gz43_268202 |
| M00055353C:A05 | ES 205 | 426698    | 2056.M18.gz43_268282 |
| M00055353D:C05 | ES 205 | 558959    | 2056.M24.gz43_268378 |
| M00055354A:A01 | ES 205 | 558182    | 2056.N04.gz43_268059 |
| M00055354A:G11 | ES 205 | 471712    | 2056.N11.gz43_268171 |
| M00055354A:H08 | ES 205 | 561068    | 2056.N12.gz43_268187 |
| M00055354C:C12 | ES 205 | 238146    | 2056.N16.gz43_268251 |
| M00055354C:E01 | ES 205 | 184995    | 2056.N17.gz43_268267 |
| M00055354C:F04 | ES 205 | 560805    | 2056.N18.gz43_268283 |
| M00055355A:A10 | ES 205 | 487623    | 2056.N23.gz43_268363 |
| M00055355A:H04 | ES 205 | 562719    | 2056.O02.gz43_268028 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055355C:A11 | ES 205 | 559910    | 2056.O07.gz43_268108 |
| M00055356A:B06 | ES 205 | 471272    | 2056.O13.gz43_268204 |
| M00055356A:D04 | ES 205 | 626061    | 2056.O14.gz43_268220 |
| M00055356A:D09 | ES 205 | 556365    | 2056.O15.gz43_268236 |
| M00055356B:B04 | ES 205 | 549781    | 2056.O17.gz43_268268 |
| M00055356C:H02 | ES 205 | 561108    | 2056.P01.gz43_268013 |
| M00055356D:C11 | ES 205 | 560174    | 2056.P07.gz43_268109 |
| M00055356D:G09 | ES 205 | 549464    | 2056.P08.gz43_268125 |
| M00055357A:A09 | ES 205 | 449751    | 2056.P10.gz43_268157 |
| M00055357B:A08 | ES 205 | 554591    | 2056.P15.gz43_268237 |
| M00055357B:B01 | ES 205 | 448989    | 2056.P16.gz43_268253 |
| M00055357B:B07 | ES 205 | 551412    | 2056.P17.gz43_268269 |
| M00055357C:H07 | ES 205 | 492821    | 2056.P22.gz43_268349 |
| M00055358A:F09 | ES 205 | 627297    | 2065.A06.gz43_268462 |
| M00055358B:C01 | ES 205 | 561485    | 2065.A09.gz43_268510 |
| M00055358D:G04 | ES 205 | 465610    | 2065.A17.gz43_268638 |
| M00055359B:F03 | ES 205 | 559495    | 2065.A21.gz43_268702 |
| M00055359B:G09 | ES 205 | 559676    | 2065.A23.gz43_268734 |
| M00055359B:H07 | ES 205 | 491635    | 2065.A24.gz43_268750 |
| M00055359C:H09 | ES 205 | 501534    | 2065.B08.gz43_268495 |
| M00055359D:C12 | ES 205 | 451124    | 2065.B11.gz43_268543 |
| M00055359D:H02 | ES 205 | 559828    | 2065.B15.gz43_268607 |
| M00055360C:C05 | ES 205 | 495799    | 2065.C02.gz43_268400 |
| M00055360C:F08 | ES 205 | 471718    | 2065.C05.gz43_268448 |
| M00055360C:G11 | ES 205 | 456469    | 2065.C06.gz43_268464 |
| M00055360D:H10 | ES 205 | 449593    | 2065.C12.gz43_268560 |
| M00055361A:C01 | ES 205 | 559022    | 2065.C15.gz43_268608 |
| M00055361B:F12 | ES 205 | 553615    | 2065.C20.gz43_268688 |
| M00055361B:G08 | ES 205 | 559675    | 2065.C21.gz43_268704 |
| M00055361C:E05 | ES 205 | 562459    | 2065.C22.gz43_268720 |
| M00055361D:C05 | ES 205 | 558927    | 2065.D02.gz43_268401 |
| M00055361D:H12 | ES 205 | 559696    | 2065.D05.gz43_268449 |
| M00055362C:B06 | ES 205 | 558412    | 2065.D11.gz43_268545 |
| M00055362C:G08 | ES 205 | 559675    | 2065.D14.gz43_268593 |
| M00055362C:H07 | ES 205 | 484091    | 2065.D15.gz43_268609 |
| M00055363A:C03 | ES 205 | 556947    | 2065.D22.gz43_268721 |
| M00055363A:D02 | ES 205 | 32021     | 2065.D24.gz43_268753 |
| M00055363A:F07 | ES 205 | 550562    | 2065.E02.gz43_268402 |
| M00055363C:E02 | ES 205 | 91178     | 2065.E08.gz43_268498 |
| M00055364B:B01 | ES 205 | 558504    | 2065.E15.gz43_268610 |
| M00055364B:D01 | ES 205 | 463304    | 2065.E17.gz43_268642 |
| M00055364B:E10 | ES 205 | 559963    | 2065.E18.gz43_268658 |
| M00055364C:B08 | ES 205 | 534054    | 2065.E20.gz43_268690 |
| M00055364D:E09 | ES 205 | 636651    | 2065.F03.gz43_268419 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055365B:G10 | ES 206 | 559919    | 2065.F09.gz43_268515 |
| M00055365C:D12 | ES 206 | 558334    | 2065.F11.gz43_268547 |
| M00055365C:F11 | ES 206 | 561825    | 2065.F13.gz43_268579 |
| M00055366A:B04 | ES 206 | 556850    | 2065.F15.gz43_268611 |
| M00055366A:H08 | ES 206 | 551551    | 2065.F17.gz43_268643 |
| M00055366B:C04 | ES 206 | 511746    | 2065.F20.gz43_268691 |
| M00055366C:B11 | ES 206 | 505971    | 2065.F23.gz43_268739 |
| M00055366D:G10 | ES 206 | 527410    | 2065.G07.gz43_268484 |
| M00055367A:B11 | ES 206 | 556430    | 2065.G12.gz43_268564 |
| M00055367D:A05 | ES 206 | 523606    | 2065.H02.gz43_268405 |
| M00055368C:G06 | ES 206 | 482515    | 2065.H21.gz43_268709 |
| M00055368D:E03 | ES 206 | 558813    | 2065.H23.gz43_268741 |
| M00055369A:H08 | ES 206 | 556959    | 2065.I07.gz43_268486 |
| M00055369C:D04 | ES 206 | 557783    | 2065.I09.gz43_268518 |
| M00055370A:B03 | ES 206 | 335714    | 2065.I17.gz43_268646 |
| M00055370B:F07 | ES 206 | 549163    | 2065.J02.gz43_268407 |
| M00055370C:B08 | ES 206 | 562280    | 2065.J05.gz43_268455 |
| M00055370C:D02 | ES 206 | 552031    | 2065.J06.gz43_268471 |
| M00055370D:F06 | ES 206 | 549984    | 2065.J12.gz43_268567 |
| M00055370D:H07 | ES 206 | 560959    | 2065.J13.gz43_268583 |
| M00055370D:H12 | ES 206 | 554885    | 2065.J14.gz43_268599 |
| M00055371A:B05 | ES 206 | 508515    | 2065.J15.gz43_268615 |
| M00055371A:H10 | ES 206 | 562027    | 2065.J18.gz43_268663 |
| M00055371B:D01 | ES 206 | 561610    | 2065.J19.gz43_268679 |
| M00055371B:F01 | ES 206 | 553705    | 2065.J21.gz43_268711 |
| M00055371D:B08 | ES 206 | 484748    | 2065.K05.gz43_268456 |
| M00055372A:H02 | ES 206 | 552265    | 2065.K11.gz43_268552 |
| M00055372B:B02 | ES 206 | 556357    | 2065.K13.gz43_268584 |
| M00055372B:E01 | ES 206 | 632260    | 2065.K14.gz43_268600 |
| M00055372B:F11 | ES 206 | 561868    | 2065.K18.gz43_268664 |
| M00055372C:E03 | ES 206 | 553904    | 2065.K22.gz43_268728 |
| M00055372D:C11 | ES 206 | 556416    | 2065.L04.gz43_268441 |
| M00055372D:G11 | ES 206 | 516008    | 2065.L09.gz43_268521 |
| M00055373B:A09 | ES 206 | 490308    | 2065.L14.gz43_268601 |
| M00055373C:F05 | ES 206 | 466887    | 2065.M01.gz43_268394 |
| M00055373C:H03 | ES 206 | 446890    | 2065.M02.gz43_268410 |
| M00055373C:H10 | ES 206 | 543323    | 2065.M03.gz43_268426 |
| M00055373D:B08 | ES 206 | 498509    | 2065.M04.gz43_268442 |
| M00055374A:B11 | ES 206 | 555796    | 2065.M11.gz43_268554 |
| M00055374A:E01 | ES 206 | 636876    | 2065.M13.gz43_268586 |
| M00055374B:D05 | ES 206 | 562565    | 2065.M19.gz43_268682 |
| M00055374B:F06 | ES 206 | 559764    | 2065.M21.gz43_268714 |
| M00055374C:F01 | ES 206 | 376726    | 2065.N04.gz43_268443 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055374D:C09 | ES 206 | 504167    | 2065.N10.gz43_268539 |
| M00055374D:F10 | ES 206 | 558507    | 2065.N11.gz43_268555 |
| M00055375B:H02 | ES 206 | 482090    | 2065.N21.gz43_268715 |
| M00055375B:H07 | ES 206 | 555878    | 2065.N22.gz43_268731 |
| M00055375C:C08 | ES 206 | 448741    | 2065.N24.gz43_268763 |
| M00055375C:F02 | ES 206 | 143210    | 2065.O01.gz43_268396 |
| M00055376A:A08 | ES 206 | 561229    | 2065.O05.gz43_268460 |
| M00055376B:A03 | ES 206 | 474580    | 2065.O09.gz43_268524 |
| M00055376B:A11 | ES 206 | 561279    | 2065.O10.gz43_268540 |
| M00055376B:B01 | ES 206 | 453846    | 2065.O11.gz43_268556 |
| M00055377A:B11 | ES 206 | 207099    | 2065.O23.gz43_268748 |
| M00055377B:E10 | ES 206 | 562844    | 2065.P02.gz43_268413 |
| M00055377C:G01 | ES 206 | 461325    | 2065.P08.gz43_268509 |
| M00055377C:H08 | ES 206 | 450637    | 2065.P09.gz43_268525 |
| M00055377D:F12 | ES 206 | 562801    | 2065.P13.gz43_268589 |
| M00055378A:B12 | ES 206 | 235456    | 2065.P19.gz43_268685 |
| M00055378D:B07 | ES 206 | 559938    | 2066.A12.gz43_270570 |
| M00055378D:D04 | ES 206 | 562524    | 2066.A13.gz43_270586 |
| M00055379A:D07 | ES 206 | 468565    | 2066.A17.gz43_270650 |
| M00055380A:C06 | ES 206 | 448949    | 2066.B17.gz43_270651 |
| M00055380D:H02 | ES 206 | 562085    | 2066.C12.gz43_270572 |
| M00055381A:F02 | ES 206 | 549082    | 2066.C14.gz43_270604 |
| M00055381B:C10 | ES 206 | 562386    | 2066.C22.gz43_270732 |
| M00055381C:G03 | ES 206 | 562876    | 2066.D09.gz43_270525 |
| M00055381D:D08 | ES 206 | 560868    | 2066.D15.gz43_270621 |
| M00055382B:E02 | ES 206 | 493487    | 2066.D23.gz43_270749 |
| M00055382C:D08 | ES 206 | 558437    | 2066.E06.gz43_270478 |
| M00055382C:H06 | ES 206 | 446399    | 2066.E12.gz43_270574 |
| M00055382D:C05 | ES 206 | 562382    | 2066.E14.gz43_270606 |
| M00055382D:D04 | ES 206 | 459764    | 2066.E15.gz43_270622 |
| M00055383A:F03 | ES 206 | 562757    | 2066.E22.gz43_270734 |
| M00055383B:H09 | ES 206 | 551995    | 2066.F08.gz43_270511 |
| M00055383C:A08 | ES 206 | 562216    | 2066.F09.gz43_270527 |
| M00055383D:F02 | ES 206 | 498390    | 2066.F17.gz43_270655 |
| M00055383D:G08 | ES 206 | 454031    | 2066.F22.gz43_270735 |
| M00055383D:H11 | ES 206 | 559854    | 2066.F24.gz43_270767 |
| M00055384A:F05 | ES 206 | 562725    | 2066.G06.gz43_270480 |
| M00055384B:D10 | ES 206 | 562498    | 2066.G12.gz43_270576 |
| M00055384C:G07 | ES 206 | 562870    | 2066.G18.gz43_270672 |
| M00055384D:H06 | ES 206 | 550766    | 2066.G20.gz43_270704 |
| M00055385C:C04 | ES 206 | 549045    | 2066.H06.gz43_270481 |
| M00055385C:F06 | ES 206 | 561325    | 2066.H08.gz43_270513 |
| M00055385C:G09 | ES 206 | 450349    | 2066.H10.gz43_270545 |
| M00055385D:D03 | ES 206 | 418622    | 2066.H14.gz43_270609 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055386A:G05 | ES 206 | 562849    | 2066.H21.gz43_270721 |
| M00055386D:G02 | ES 206 | 558297    | 2066.I11.gz43_270562 |
| M00055386D:H04 | ES 206 | 557247    | 2066.I12.gz43_270578 |
| M00055387B:H12 | ES 206 | 550829    | 2066.I22.gz43_270738 |
| M00055388A:A09 | ES 206 | 553244    | 2066.J08.gz43_270515 |
| M00055388A:B06 | ES 206 | 560948    | 2066.J09.gz43_270531 |
| M00055388B:B02 | ES 206 | 465836    | 2066.J13.gz43_270595 |
| M00055388B:E01 | ES 206 | 636532    | 2066.J17.gz43_270659 |
| M00055388B:H04 | ES 206 | 557249    | 2066.J20.gz43_270707 |
| M00055388C:D01 | ES 206 | 635965    | 2066.J22.gz43_270739 |
| M00055388D:A01 | ES 206 | 555681    | 2066.J24.gz43_270771 |
| M00055388D:F11 | ES 206 | 556793    | 2066.K10.gz43_270548 |
| M00055389A:D08 | ES 206 | 238196    | 2066.K14.gz43_270612 |
| M00055389C:F12 | ES 206 | 282015    | 2066.K24.gz43_270772 |
| M00055390A:A05 | ES 206 | 515115    | 2066.L06.gz43_270485 |
| M00055390C:E06 | ES 206 | 50604     | 2066.L18.gz43_270677 |
| M00055391B:D05 | ES 206 | 499690    | 2066.M10.gz43_270550 |
| M00055391B:D07 | ES 206 | 453508    | 2066.M11.gz43_270566 |
| M00055391B:H07 | ES 206 | 418921    | 2066.M14.gz43_270614 |
| M00055391B:H08 | ES 206 | 555639    | 2066.M15.gz43_270630 |
| M00055392A:H06 | ES 206 | 446242    | 2066.N03.gz43_270439 |
| M00055392C:G07 | ES 206 | 551640    | 2066.N11.gz43_270567 |
| M00055392D:A06 | ES 206 | 562701    | 2066.N13.gz43_270599 |
| M00055393B:F04 | ES 206 | 44015     | 2066.N23.gz43_270759 |
| M00055393C:B02 | ES 206 | 549889    | 2066.N24.gz43_270775 |
| M00055394B:C06 | ES 206 | 561457    | 2066.O13.gz43_270600 |
| M00055394B:D08 | ES 206 | 556011    | 2066.O15.gz43_270632 |
| M00055394D:F03 | ES 206 | 554908    | 2066.P07.gz43_270505 |
| M00055395A:C02 | ES 206 | 446531    | 2066.P09.gz43_270537 |
| M00055395A:E09 | ES 206 | 452808    | 2066.P13.gz43_270601 |
| M00055395B:C04 | ES 206 | 561487    | 2066.P17.gz43_270665 |
| M00055396B:C06 | ES 206 | 560003    | 2067.A11.gz43_270938 |
| M00055396B:G02 | ES 206 | 561922    | 2067.A14.gz43_270986 |
| M00055397A:B10 | ES 206 | 562236    | 2067.A23.gz43_271130 |
| M00055397A:C06 | ES 206 | 154980    | 2067.A24.gz43_271146 |
| M00055397A:H07 | ES 206 | 556380    | 2067.B06.gz43_270859 |
| M00055397B:F12 | ES 206 | 562736    | 2067.B08.gz43_270891 |
| M00055397D:A01 | ES 206 | 562147    | 2067.B12.gz43_270955 |
| M00055398A:C11 | ES 206 | 561438    | 2067.B20.gz43_271083 |
| M00055398B:A05 | ES 206 | 469852    | 2067.B21.gz43_271099 |
| M00055398B:C05 | ES 206 | 456687    | 2067.B23.gz43_271131 |
| M00055398C:A11 | ES 206 | 555882    | 2067.B24.gz43_271147 |
| M00055398C:D01 | ES 206 | 448511    | 2067.C02.gz43_270796 |
| M00055398C:F07 | ES 206 | 511792    | 2067.C06.gz43_270860 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055399C:A08 | ES 206 | 513715    | 2067.C21.gz43_271100 |
| M00055400B:H12 | ES 206 | 562029    | 2067.D19.gz43_271069 |
| M00055400D:G01 | ES 206 | 556382    | 2067.E04.gz43_270830 |
| M00055401A:C08 | ES 206 | 449258    | 2067.E06.gz43_270862 |
| M00055401D:E03 | ES 206 | 551731    | 2067.E21.gz43_271102 |
| M00055402A:A05 | ES 206 | 561206    | 2067.F02.gz43_270799 |
| M00055402A:H03 | ES 206 | 98869     | 2067.F06.gz43_270863 |
| M00055402C:C12 | ES 206 | 551928    | 2067.F22.gz43_271119 |
| M00055402D:A11 | ES 206 | 486834    | 2067.G02.gz43_270800 |
| M00055402D:H04 | ES 206 | 562059    | 2067.G06.gz43_270864 |
| M00055403A:C07 | ES 206 | 555856    | 2067.G11.gz43_270944 |
| M00055403B:A05 | ES 206 | 490060    | 2067.G16.gz43_271024 |
| M00055403B:A10 | ES 206 | 558180    | 2067.G18.gz43_271056 |
| M00055403B:D04 | ES 206 | 555726    | 2067.G21.gz43_271104 |
| M00055403B:D07 | ES 206 | 553173    | 2067.G22.gz43_271120 |
| M00055403B:G09 | ES 206 | 551675    | 2067.G23.gz43_271136 |
| M00055403B:G12 | ES 206 | 561236    | 2067.G24.gz43_271152 |
| M00055404A:B10 | ES 206 | 561325    | 2067.H10.gz43_270929 |
| M00055404A:D08 | ES 206 | 553766    | 2067.H12.gz43_270961 |
| M00055404C:C11 | ES 206 | 530715    | 2067.H23.gz43_271137 |
| M00055405A:A02 | ES 206 | 561236    | 2067.I05.gz43_270850 |
| M00055405A:C01 | ES 206 | 452761    | 2067.I06.gz43_270866 |
| M00055405A:G11 | ES 206 | 419489    | 2067.I07.gz43_270882 |
| M00055405B:H05 | ES 206 | 554742    | 2067.I10.gz43_270930 |
| M00055405B:H06 | ES 206 | 473617    | 2067.I11.gz43_270946 |
| M00055405C:C04 | ES 206 | 63669     | 2067.I13.gz43_270978 |
| M00055405C:H07 | ES 206 | 559102    | 2067.I14.gz43_270994 |
| M00055405D:G05 | ES 206 | 551617    | 2067.I20.gz43_271090 |
| M00055406B:E07 | ES 206 | 562584    | 2067.J05.gz43_270851 |
| M00055406B:F10 | ES 206 | 562369    | 2067.J07.gz43_270883 |
| M00055406D:A03 | ES 206 | 491260    | 2067.J13.gz43_270979 |
| M00055406D:C10 | ES 206 | 487893    | 2067.J16.gz43_271027 |
| M00055406D:G12 | ES 206 | 557853    | 2067.J18.gz43_271059 |
| M00055407A:F08 | ES 206 | 465828    | 2067.J24.gz43_271155 |
| M00055407B:G07 | ES 206 | 550730    | 2067.K02.gz43_270804 |
| M00055407C:E04 | ES 206 | 465284    | 2067.K06.gz43_270868 |
| M00055407C:G04 | ES 206 | 556105    | 2067.K08.gz43_270900 |
| M00055407C:G11 | ES 206 | 560252    | 2067.K09.gz43_270916 |
| M00055408A:A05 | ES 206 | 561212    | 2067.K15.gz43_271012 |
| M00055408A:F12 | ES 206 | 66014     | 2067.K23.gz43_271140 |
| M00055408A:G09 | ES 206 | 446650    | 2067.L01.gz43_270789 |
| M00055408B:G04 | ES 206 | 447800    | 2067.L08.gz43_270901 |
| M00055408C:C04 | ES 206 | 451938    | 2067.L11.gz43_270949 |
| M00055408C:E04 | ES 206 | 559776    | 2067.L13.gz43_270981 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055408D:E05 | ES 206 | 548939    | 2067.L17.gz43_271045 |
| M00055408D:E11 | ES 206 | 558720    | 2067.L18.gz43_271061 |
| M00055409A:E06 | ES 206 | 100821    | 2067.L23.gz43_271141 |
| M00055409A:E10 | ES 206 | 516043    | 2067.L24.gz43_271157 |
| M00055410C:G08 | ES 206 | 550135    | 2067.N05.gz43_270855 |
| M00055410C:H11 | ES 206 | 562001    | 2067.N08.gz43_270903 |
| M00055410D:B02 | ES 206 | 288626    | 2067.N09.gz43_270919 |
| M00055410D:G01 | ES 206 | 633189    | 2067.N11.gz43_270951 |
| M00055411A:H04 | ES 206 | 558583    | 2067.N16.gz43_271031 |
| M00055411B:D12 | ES 206 | 356058    | 2067.N22.gz43_271127 |
| M00055411C:E02 | ES 206 | 450060    | 2067.O03.gz43_270824 |
| M00055412A:C05 | ES 206 | 440833    | 2067.O14.gz43_271000 |
| M00055412A:F09 | ES 206 | 556734    | 2067.O15.gz43_271016 |
| M00055412B:A07 | ES 206 | 495958    | 2067.O16.gz43_271032 |
| M00055412D:A12 | ES 206 | 560838    | 2067.P03.gz43_270825 |
| M00055413A:A02 | ES 206 | 540000    | 2067.P07.gz43_270889 |
| M00055413C:B09 | ES 206 | 446171    | 2067.P19.gz43_271081 |
|                |        |           |                      |
| M00042583D:F03 | ES 207 | 452204    | 2078.A10.gz43_269168 |
| M00042583D:F11 | ES 207 | 506901    | 2078.A11.gz43_269184 |
| M00042586B:A04 | ES 207 | 451722    | 2078.A22.gz43_269360 |
| M00042586B:A09 | ES 207 | 451933    | 2078.A23.gz43_269376 |
| M00042586B:A10 | ES 207 | 448453    | 2078.A24.gz43_269392 |
| M00042586C:E01 | ES 207 | 451923    | 2078.B03.gz43_269057 |
| M00042586D:C07 | ES 207 | 451868    | 2078.B06.gz43_269105 |
| M00042587B:G07 | ES 207 | 452260    | 2078.B09.gz43_269153 |
| M00042588A:G10 | ES 207 | 508088    | 2078.B16.gz43_269265 |
| M00042588C:E07 | ES 207 | 505858    | 2078.B19.gz43_269313 |
| M00042589A:G06 | ES 207 | 452236    | 2078.B21.gz43_269345 |
| M00042589B:D04 | ES 207 | 504007    | 2078.B22.gz43_269361 |
| M00042589B:E03 | ES 207 | 452066    | 2078.B23.gz43_269377 |
| M00042589D:D08 | ES 207 | 415825    | 2078.C08.gz43_269138 |
| M00042589D:F02 | ES 207 | 452182    | 2078.C09.gz43_269154 |
| M00042590B:G02 | ES 207 | 507349    | 2078.C11.gz43_269186 |
| M00042590C:C09 | ES 207 | 418340    | 2078.C12.gz43_269202 |
| M00042621B:G01 | ES 207 | 452257    | 2078.C16.gz43_269266 |
| M00042621D:A03 | ES 207 | 501401    | 2078.C19.gz43_269314 |
| M00042622C:H12 | ES 207 | 452315    | 2078.D03.gz43_269059 |
| M00042623B:B09 | ES 207 | 451802    | 2078.D06.gz43_269107 |
| M00042623D:C02 | ES 207 | 447210    | 2078.D09.gz43_269155 |
| M00042624D:B05 | ES 207 | 452462    | 2078.D14.gz43_269235 |
| M00042625B:H10 | ES 207 | 517247    | 2078.D20.gz43_269331 |
| M00042625D:C07 | ES 207 | 511746    | 2078.E06.gz43_269108 |
| M00042625D:E08 | ES 207 | 513888    | 2078.E07.gz43_269124 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042626B:A12 | ES 207 | 452432    | 2078.E10.gz43_269172 |
| M00042626D:D12 | ES 207 | 452031    | 2078.E16.gz43_269268 |
| M00042627B:A10 | ES 207 | 452376    | 2078.E18.gz43_269300 |
| M00042628B:G11 | ES 207 | 451401    | 2078.F04.gz43_269077 |
| M00042628C:G10 | ES 207 | 516522    | 2078.F06.gz43_269109 |
| M00042628D:F12 | ES 207 | 447904    | 2078.F08.gz43_269141 |
| M00042629A:E11 | ES 207 | 452052    | 2078.F11.gz43_269189 |
| M00042630B:C04 | ES 207 | 451885    | 2078.F20.gz43_269333 |
| M00042630C:C12 | ES 207 | 503499    | 2078.F22.gz43_269365 |
| M00042951D:C05 | ES 207 | 451841    | 2078.G05.gz43_269094 |
| M00042952A:H12 | ES 207 | 452324    | 2078.G10.gz43_269174 |
| M00042952B:A08 | ES 207 | 500853    | 2078.G11.gz43_269190 |
| M00042952B:C08 | ES 207 | 451887    | 2078.G12.gz43_269206 |
| M00042952C:H09 | ES 207 | 452323    | 2078.G16.gz43_269270 |
| M00042953B:D02 | ES 207 | 504560    | 2078.H01.gz43_269031 |
| M00042954A:F04 | ES 207 | 452142    | 2078.H12.gz43_269207 |
| M00042954D:D04 | ES 207 | 451993    | 2078.H18.gz43_269303 |
| M00042955D:C02 | ES 207 | 502815    | 2078.I02.gz43_269048 |
| M00042955D:H03 | ES 207 | 448594    | 2078.I04.gz43_269080 |
| M00042956A:H02 | ES 207 | 448090    | 2078.I05.gz43_269096 |
| M00042957A:D06 | ES 207 | 451994    | 2078.I12.gz43_269208 |
| M00042957D:C09 | ES 207 | 451929    | 2078.I18.gz43_269304 |
| M00042958B:H04 | ES 207 | 452981    | 2078.J02.gz43_269049 |
| M00042958C:D04 | ES 207 | 512721    | 2078.J03.gz43_269065 |
| M00042958C:G10 | ES 207 | 516018    | 2078.J04.gz43_269081 |
| M00042959A:B07 | ES 207 | 423578    | 2078.J06.gz43_269113 |
| M00042959A:E08 | ES 207 | 514142    | 2078.J08.gz43_269145 |
| M00042959B:E11 | ES 207 | 514160    | 2078.J11.gz43_269193 |
| M00042959C:C06 | ES 207 | 452615    | 2078.J12.gz43_269209 |
| M00042959D:A05 | ES 207 | 510169    | 2078.J14.gz43_269241 |
| M00042960A:B10 | ES 207 | 448332    | 2078.J17.gz43_269289 |
| M00042960D:C11 | ES 207 | 512051    | 2078.K03.gz43_269066 |
| M00042962A:G04 | ES 207 | 452899    | 2078.K12.gz43_269210 |
| M00042962B:A03 | ES 207 | 446438    | 2078.K13.gz43_269226 |
| M00042962C:D05 | ES 207 | 513155    | 2078.K16.gz43_269274 |
| M00042962D:B09 | ES 207 | 511351    | 2078.K18.gz43_269306 |
| M00042963B:A02 | ES 207 | 452459    | 2078.K23.gz43_269386 |
| M00042963B:E12 | ES 207 | 514594    | 2078.L02.gz43_269051 |
| M00042963D:F11 | ES 207 | 452801    | 2078.L07.gz43_269131 |
| M00042964C:D06 | ES 207 | 513156    | 2078.L16.gz43_269275 |
| M00042964C:D10 | ES 207 | 513168    | 2078.L17.gz43_269291 |
| M00042964D:C02 | ES 207 | 512059    | 2078.L21.gz43_269355 |
| M00042965A:B03 | ES 207 | 452506    | 2078.L23.gz43_269387 |
| M00042965A:G02 | ES 207 | 516415    | 2078.M01.gz43_269036 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042965B:G08 | ES 207 | 452898    | 2078.M04.gz43_269084 |
| M00042965C:A05 | ES 207 | 452454    | 2078.M06.gz43_269116 |
| M00042965C:E06 | ES 207 | 452775    | 2078.M07.gz43_269132 |
| M00042967A:E06 | ES 207 | 513585    | 2078.M18.gz43_269308 |
| M00042969B:E01 | ES 207 | 505679    | 2078.N04.gz43_269085 |
| M00042969B:G10 | ES 207 | 452279    | 2078.N05.gz43_269101 |
| M00042970D:D02 | ES 207 | 452695    | 2078.N16.gz43_269277 |
| M00042971A:B09 | ES 207 | 510717    | 2078.N17.gz43_269293 |
| M00042971A:D12 | ES 207 | 452662    | 2078.N19.gz43_269325 |
| M00042972C:F07 | ES 207 | 451618    | 2078.O04.gz43_269086 |
| M00042972C:F09 | ES 207 | 373239    | 2078.O05.gz43_269102 |
| M00042973B:B10 | ES 207 | 452500    | 2078.O09.gz43_269166 |
| M00042974D:B07 | ES 207 | 456545    | 2078.O17.gz43_269294 |
| M00042975C:A08 | ES 207 | 450805    | 2078.O21.gz43_269358 |
| M00042975D:G07 | ES 207 | 453124    | 2078.P01.gz43_269039 |
| M00042976B:F05 | ES 207 | 506920    | 2078.P03.gz43_269071 |
| M00042978B:F03 | ES 207 | 452833    | 2078.P17.gz43_269295 |
| M00042978D:E02 | ES 207 | 27534     | 2078.P20.gz43_269343 |
| M00042982C:G02 | ES 207 | 448687    | 2079.A18.gz43_271818 |
| M00042983A:E09 | ES 207 | 504880    | 2079.A22.gz43_271882 |
| M00042983D:A03 | ES 207 | 456756    | 2079.B06.gz43_271627 |
| M00042985B:C05 | ES 207 | 448200    | 2079.B14.gz43_271755 |
| M00042985B:F05 | ES 207 | 506372    | 2079.B15.gz43_271771 |
| M00042985C:B03 | ES 207 | 451811    | 2079.B16.gz43_271787 |
| M00042985C:D02 | ES 207 | 504501    | 2079.B17.gz43_271803 |
| M00042985C:D04 | ES 207 | 451491    | 2079.B18.gz43_271819 |
| M00042986B:E06 | ES 207 | 447445    | 2079.B22.gz43_271883 |
| M00042986C:B07 | ES 207 | 501534    | 2079.B24.gz43_271915 |
| M00042987C:E04 | ES 207 | 505226    | 2079.C06.gz43_271628 |
| M00042988D:G10 | ES 207 | 452220    | 2079.C13.gz43_271740 |
| M00042989C:A06 | ES 207 | 510254    | 2079.C15.gz43_271772 |
| M00042989C:B07 | ES 207 | 511348    | 2079.C16.gz43_271788 |
| M00042989D:A07 | ES 207 | 509505    | 2079.C20.gz43_271852 |
| M00042990A:E05 | ES 207 | 448813    | 2079.C21.gz43_271868 |
| M00042990B:A08 | ES 207 | 500795    | 2079.C23.gz43_271900 |
| M00042991B:G01 | ES 207 | 452874    | 2079.D05.gz43_271613 |
| M00042991C:C02 | ES 207 | 238196    | 2079.D06.gz43_271629 |
| M00042991D:C09 | ES 207 | 452603    | 2079.D09.gz43_271677 |
| M00042991D:F06 | ES 207 | 452830    | 2079.D12.gz43_271725 |
| M00042992B:B03 | ES 207 | 451812    | 2079.D15.gz43_271773 |
| M00042992B:B11 | ES 207 | 502343    | 2079.D16.gz43_271789 |
| M00042992D:H02 | ES 207 | 75212     | 2079.D19.gz43_271837 |
| M00042993A:D12 | ES 207 | 513178    | 2079.D21.gz43_271869 |
| M00042993B:C12 | ES 207 | 446520    | 2079.D23.gz43_271901 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042994C:C09 | ES 207 | 503628    | 2079.E05.gz43_271614 |
| M00042995C:E04 | ES 207 | 455716    | 2079.E11.gz43_271710 |
| M00042996D:D12 | ES 207 | 453804    | 2079.E21.gz43_271870 |
| M00042997B:B07 | ES 207 | 451806    | 2079.E23.gz43_271902 |
| M00042999A:D01 | ES 207 | 403634    | 2079.F07.gz43_271647 |
| M00043000C:H06 | ES 207 | 509027    | 2079.F14.gz43_271759 |
| M00055413C:G09 | ES 207 | 556126    | 2067.P21.gz43_271113 |
| M00055414C:C02 | ES 207 | 456520    | 2068.A13.gz43_271354 |
| M00055414D:G10 | ES 207 | 482425    | 2068.A21.gz43_271482 |
| M00055415D:C12 | ES 207 | 561500    | 2068.B15.gz43_271387 |
| M00055415D:E10 | ES 207 | 204557    | 2068.B17.gz43_271419 |
| M00055416A:C04 | ES 207 | 561497    | 2068.B21.gz43_271483 |
| M00055416B:F11 | ES 207 | 561770    | 2068.C07.gz43_271260 |
| M00055416D:B03 | ES 207 | 562477    | 2068.C12.gz43_271340 |
| M00055416D:D11 | ES 207 | 558679    | 2068.C14.gz43_271372 |
| M00055416D:H11 | ES 207 | 555880    | 2068.C18.gz43_271436 |
| M00055417A:G11 | ES 207 | 131130    | 2068.C21.gz43_271484 |
| M00055417C:A05 | ES 207 | 550166    | 2068.D04.gz43_271213 |
| M00055417C:G03 | ES 207 | 561112    | 2068.D05.gz43_271229 |
| M00055417D:D08 | ES 207 | 557760    | 2068.D08.gz43_271277 |
| M00055417D:H08 | ES 207 | 470667    | 2068.D10.gz43_271309 |
| M00055418A:C12 | ES 207 | 561454    | 2068.D12.gz43_271341 |
| M00055418A:E07 | ES 207 | 561682    | 2068.D15.gz43_271389 |
| M00055418A:F03 | ES 207 | 560252    | 2068.D16.gz43_271405 |
| M00055418A:H04 | ES 207 | 554774    | 2068.D17.gz43_271421 |
| M00055418C:D08 | ES 207 | 418562    | 2068.E05.gz43_271230 |
| M00055418D:A03 | ES 207 | 552561    | 2068.E10.gz43_271310 |
| M00055418D:B05 | ES 207 | 630348    | 2068.E11.gz43_271326 |
| M00055419D:D04 | ES 207 | 561646    | 2068.F04.gz43_271215 |
| M00055419D:H07 | ES 207 | 550018    | 2068.F09.gz43_271295 |
| M00055420A:E12 | ES 207 | 561707    | 2068.F14.gz43_271375 |
| M00055420A:F01 | ES 207 | 558958    | 2068.F15.gz43_271391 |
| M00055420C:E08 | ES 207 | 524736    | 2068.F22.gz43_271503 |
| M00055421A:A09 | ES 207 | 556793    | 2068.G10.gz43_271312 |
| M00055421B:E05 | ES 207 | 58680     | 2068.G22.gz43_271504 |
| M00055421C:F06 | ES 207 | 561837    | 2068.H09.gz43_271297 |
| M00055421C:G07 | ES 207 | 491728    | 2068.H11.gz43_271329 |
| M00055421D:G11 | ES 207 | 559884    | 2068.H16.gz43_271409 |
| M00055422B:B01 | ES 207 | 554489    | 2068.H22.gz43_271505 |
| M00055422C:E10 | ES 207 | 554028    | 2068.I09.gz43_271298 |
| M00055422D:E12 | ES 207 | 631966    | 2068.I12.gz43_271346 |
| M00055423A:A10 | ES 207 | 561180    | 2068.I14.gz43_271378 |
| M00055423A:D02 | ES 207 | 560118    | 2068.I15.gz43_271394 |
| M00055423A:G08 | ES 207 | 449356    | 2068.I16.gz43_271410 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00055423B:A06 | ES 207 | 553987    | 2068.I17.gz43_271426 |
| M00055423C:C11 | ES 207 | 559514    | 2068.J04.gz43_271219 |
| M00055423C:D05 | ES 207 | 559385    | 2068.J05.gz43_271235 |
| M00055424A:A08 | ES 207 | 556511    | 2068.J12.gz43_271347 |
| M00055424A:C10 | ES 207 | 492982    | 2068.J13.gz43_271363 |
| M00055424A:F04 | ES 207 | 512392    | 2068.J15.gz43_271395 |
| M00055424A:F06 | ES 207 | 48977     | 2068.J16.gz43_271411 |
| M00055424B:D04 | ES 207 | 559380    | 2068.K01.gz43_271172 |
| M00055425A:H03 | ES 207 | 554953    | 2068.K14.gz43_271380 |
| M00055425B:D12 | ES 207 | 561645    | 2068.K17.gz43_271428 |
| M00055425B:F06 | ES 207 | 493410    | 2068.K20.gz43_271476 |
| M00055471C:A06 | ES 207 | 412282    | 2068.L13.gz43_271365 |
| M00055471C:B01 | ES 207 | 492876    | 2068.L14.gz43_271381 |
| M00055471C:D04 | ES 207 | 447098    | 2068.L16.gz43_271413 |
| M00055472A:B12 | ES 207 | 561411    | 2068.M05.gz43_271238 |
| M00055472A:F02 | ES 207 | 468672    | 2068.M08.gz43_271286 |
| M00055472A:H01 | ES 207 | 551166    | 2068.M09.gz43_271302 |
| M00055472C:G11 | ES 207 | 549511    | 2068.M18.gz43_271446 |
| M00055472D:H09 | ES 207 | 562017    | 2068.N03.gz43_271207 |
| M00055473B:D01 | ES 207 | 556490    | 2068.N08.gz43_271287 |
| M00055473B:E10 | ES 207 | 561718    | 2068.N10.gz43_271319 |
| M00055473C:A05 | ES 207 | 559076    | 2068.N12.gz43_271351 |
| M00055473C:E06 | ES 207 | 554181    | 2068.N15.gz43_271399 |
| M00055473C:H05 | ES 207 | 522220    | 2068.N16.gz43_271415 |
| M00055473D:E01 | ES 207 | 561753    | 2068.N20.gz43_271479 |
| M00055474A:B05 | ES 207 | 562302    | 2068.N22.gz43_271511 |
| M00055474A:G06 | ES 207 | 449795    | 2068.O03.gz43_271208 |
| M00055474B:G02 | ES 207 | 486512    | 2068.O09.gz43_271304 |
| M00055474C:H12 | ES 207 | 555933    | 2068.O14.gz43_271384 |
| M00055474D:E07 | ES 207 | 268197    | 2068.O18.gz43_271448 |
| M00055475D:A05 | ES 207 | 417426    | 2068.P12.gz43_271353 |
| M00055475D:A10 | ES 207 | 562137    | 2068.P14.gz43_271385 |
| M00055475D:B07 | ES 207 | 453715    | 2068.P16.gz43_271417 |
| M00055475D:G08 | ES 207 | 560700    | 2068.P18.gz43_271449 |
|                |        |           |                      |
| M00042611A:A01 | ES 208 | 449068    | 2089.A01.gz43_269708 |
| M00042612A:B06 | ES 208 | 405102    | 2089.A06.gz43_269788 |
| M00042613A:H01 | ES 208 | 453783    | 2089.A15.gz43_269932 |
| M00042613C:F06 | ES 208 | 453783    | 2089.A18.gz43_269980 |
| M00042614A:C04 | ES 208 | 520074    | 2089.A22.gz43_270044 |
| M00042614A:H02 | ES 208 | 524157    | 2089.A23.gz43_270060 |
| M00042614C:B09 | ES 208 | 447446    | 2089.A24.gz43_270076 |
| M00042614D:A12 | ES 208 | 453220    | 2089.B03.gz43_269741 |
| M00042616A:D03 | ES 208 | 527590    | 2089.B10.gz43_269853 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00042617C:B07 | ES 208 | 453385    | 2089.B20.gz43_270013 |
| M00042618B:G04 | ES 208 | 453893    | 2089.C03.gz43_269742 |
| M00043001A:C10 | ES 208 | 451850    | 2079.F16.gz43_271791 |
| M00043001B:C01 | ES 208 | 503122    | 2079.F17.gz43_271807 |
| M00043001B:E02 | ES 208 | 452969    | 2079.F18.gz43_271823 |
| M00043001B:H01 | ES 208 | 452325    | 2079.F19.gz43_271839 |
| M00043001C:C03 | ES 208 | 451891    | 2079.F20.gz43_271855 |
| M00043002A:G09 | ES 208 | 507450    | 2079.F23.gz43_271903 |
| M00043002B:E06 | ES 208 | 454849    | 2079.F24.gz43_271919 |
| M00043003A:H07 | ES 208 | 452976    | 2079.G11.gz43_271712 |
| M00043003C:A02 | ES 208 | 452392    | 2079.G15.gz43_271776 |
| M00043003C:G10 | ES 208 | 452866    | 2079.G18.gz43_271824 |
| M00043003D:D10 | ES 208 | 455132    | 2079.G20.gz43_271856 |
| M00043004A:C08 | ES 208 | 503625    | 2079.G22.gz43_271888 |
| M00043004A:C10 | ES 208 | 448381    | 2079.G23.gz43_271904 |
| M00043005A:B06 | ES 208 | 452504    | 2079.H06.gz43_271633 |
| M00043007B:D12 | ES 208 | 366607    | 2079.H24.gz43_271921 |
| M00043007D:F07 | ES 208 | 452186    | 2079.I05.gz43_271618 |
| M00043008D:E12 | ES 208 | 504812    | 2079.I15.gz43_271778 |
| M00043008D:H09 | ES 208 | 508126    | 2079.I17.gz43_271810 |
| M00043009B:C09 | ES 208 | 502984    | 2079.I19.gz43_271842 |
| M00043009B:F11 | ES 208 | 452160    | 2079.I20.gz43_271858 |
| M00043010B:B02 | ES 208 | 451794    | 2079.J09.gz43_271683 |
| M00043011B:D03 | ES 208 | 504431    | 2079.J15.gz43_271779 |
| M00043011C:H09 | ES 208 | 508125    | 2079.J19.gz43_271843 |
| M00043011D:C12 | ES 208 | 502614    | 2079.J22.gz43_271891 |
| M00043012A:E02 | ES 208 | 452110    | 2079.K03.gz43_271588 |
| M00043012A:F06 | ES 208 | 453572    | 2079.K04.gz43_271604 |
| M00043012D:A06 | ES 208 | 449510    | 2079.K10.gz43_271700 |
| M00043013B:A06 | ES 208 | 500896    | 2079.K13.gz43_271748 |
| M00043013C:A01 | ES 208 | 455117    | 2079.K16.gz43_271796 |
| M00043013D:F03 | ES 208 | 455621    | 2079.K18.gz43_271828 |
| M00043014B:G12 | ES 208 | 454226    | 2079.K22.gz43_271892 |
| M00043014C:F07 | ES 208 | 505933    | 2079.K23.gz43_271908 |
| M00043014C:G06 | ES 208 | 507066    | 2079.K24.gz43_271924 |
| M00043017D:B06 | ES 208 | 455855    | 2079.L13.gz43_271749 |
| M00043020A:A03 | ES 208 | 452440    | 2079.L15.gz43_271781 |
| M00043020A:G12 | ES 208 | 452922    | 2079.L16.gz43_271797 |
| M00043021A:A09 | ES 208 | 452445    | 2079.L18.gz43_271829 |
| M00043021A:B06 | ES 208 | 452528    | 2079.L19.gz43_271845 |
| M00043021A:C04 | ES 208 | 454286    | 2079.L20.gz43_271861 |
| M00043021A:H06 | ES 208 | 453078    | 2079.L21.gz43_271877 |
| M00043021B:H03 | ES 208 | 452973    | 2079.L22.gz43_271893 |
| M00043021D:F10 | ES 208 | 514824    | 2079.M01.gz43_271558 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043022D:A07 | ES 208 | 500622    | 2079.M06.gz43_271638 |
| M00043023D:D06 | ES 208 | 513381    | 2079.M13.gz43_271750 |
| M00043024B:H11 | ES 208 | 453079    | 2079.M20.gz43_271862 |
| M00043025A:C01 | ES 208 | 456755    | 2079.M22.gz43_271894 |
| M00043025A:D09 | ES 208 | 452648    | 2079.M23.gz43_271910 |
| M00043026D:D06 | ES 208 | 452031    | 2079.N11.gz43_271719 |
| M00043027B:C04 | ES 208 | 452618    | 2079.N14.gz43_271767 |
| M00043027D:G12 | ES 208 | 452873    | 2079.N18.gz43_271831 |
| M00043028B:F08 | ES 208 | 454487    | 2079.N21.gz43_271879 |
| M00043028C:H09 | ES 208 | 453038    | 2079.N23.gz43_271911 |
| M00043029A:E11 | ES 208 | 452759    | 2079.O05.gz43_271624 |
| M00043029B:C09 | ES 208 | 512432    | 2079.O07.gz43_271656 |
| M00043029B:F09 | ES 208 | 269927    | 2079.O09.gz43_271688 |
| M00043029B:G10 | ES 208 | 516799    | 2079.O10.gz43_271704 |
| M00043029C:D01 | ES 208 | 448550    | 2079.O11.gz43_271720 |
| M00043030C:B11 | ES 208 | 452501    | 2079.O21.gz43_271880 |
| M00043030C:F03 | ES 208 | 515127    | 2079.O22.gz43_271896 |
| M00043030D:G03 | ES 208 | 449242    | 2079.P01.gz43_271561 |
| M00043031A:B01 | ES 208 | 452523    | 2079.P02.gz43_271577 |
| M00043032B:H01 | ES 208 | 452957    | 2079.P11.gz43_271721 |
| M00043033C:C05 | ES 208 | 452611    | 2079.P21.gz43_271881 |
| M00043033C:D05 | ES 208 | 452611    | 2079.P23.gz43_271913 |
| M00043075A:B12 | ES 208 | 519109    | 2089.C14.gz43_269918 |
| M00043076A:A09 | ES 208 | 518566    | 2089.C22.gz43_270046 |
| M00043077B:H01 | ES 208 | 448985    | 2089.D07.gz43_269807 |
| M00043077D:E12 | ES 208 | 417549    | 2089.D09.gz43_269839 |
| M00043077D:F04 | ES 208 | 522648    | 2089.D10.gz43_269855 |
| M00043078C:C04 | ES 208 | 519641    | 2089.D14.gz43_269919 |
| M00043078C:H05 | ES 208 | 523732    | 2089.D16.gz43_269951 |
| M00043079C:D08 | ES 208 | 453554    | 2089.D19.gz43_269999 |
| M00043079D:G10 | ES 208 | 523182    | 2089.E01.gz43_269712 |
| M00043080A:C03 | ES 208 | 451583    | 2089.E02.gz43_269728 |
| M00043080B:B05 | ES 208 | 453297    | 2089.E03.gz43_269744 |
| M00043080B:C11 | ES 208 | 519988    | 2089.E04.gz43_269760 |
| M00043081D:A10 | ES 208 | 446614    | 2089.E09.gz43_269840 |
| M00043082D:B05 | ES 208 | 454562    | 2089.E17.gz43_269968 |
| M00043085C:A03 | ES 208 | 453160    | 2089.E24.gz43_270080 |
| M00043086A:C02 | ES 208 | 453470    | 2089.F03.gz43_269745 |
| M00043086D:B09 | ES 208 | 453248    | 2089.F08.gz43_269825 |
| M00043087B:D10 | ES 208 | 449430    | 2089.F13.gz43_269905 |
| M00043088B:D07 | ES 208 | 395536    | 2089.F16.gz43_269953 |
| M00043089A:D06 | ES 208 | 520616    | 2089.F21.gz43_270033 |
| M00043090B:H06 | ES 208 | 524470    | 2089.F24.gz43_270081 |
| M00043090D:H07 | ES 208 | 524478    | 2089.G03.gz43_269746 |



Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043091C:H05 | ES 208 | 530656    | 2089.G07.gz43_269810 |
| M00043091C:H08 | ES 208 | 454910    | 2089.G08.gz43_269826 |
| M00043091D:C01 | ES 208 | 454374    | 2089.G09.gz43_269842 |
| M00043091D:F03 | ES 208 | 402242    | 2089.G11.gz43_269874 |
| M00043092D:D06 | ES 208 | 454531    | 2089.G18.gz43_269986 |
| M00043093A:A06 | ES 208 | 454177    | 2089.G20.gz43_270018 |
| M00043093D:F12 | ES 208 | 454701    | 2089.H02.gz43_269731 |
| M00043094A:F01 | ES 208 | 529219    | 2089.H03.gz43_269747 |
| M00043094C:A12 | ES 208 | 525023    | 2089.H06.gz43_269795 |
| M00043096A:B02 | ES 208 | 449202    | 2089.H12.gz43_269891 |
| M00043096A:E01 | ES 208 | 528134    | 2089.H13.gz43_269907 |
| M00043096C:D02 | ES 208 | 454509    | 2089.H16.gz43_269955 |
| M00043096C:H04 | ES 208 | 451972    | 2089.H17.gz43_269971 |
| M00043097A:D11 | ES 208 | 527873    | 2089.H21.gz43_270035 |
| M00043097A:F06 | ES 208 | 387530    | 2089.H22.gz43_270051 |
| M00043097D:B12 | ES 208 | 454226    | 2089.I02.gz43_269732 |
| M00043100C:D08 | ES 208 | 453533    | 2089.I15.gz43_269940 |
| M00043100D:C12 | ES 208 | 520057    | 2089.I17.gz43_269972 |
| M00043101A:F12 | ES 208 | 522548    | 2089.I20.gz43_270020 |
| M00043101C:F12 | ES 208 | 453846    | 2089.I22.gz43_270052 |
| M00043102A:B10 | ES 208 | 453364    | 2089.J01.gz43_269717 |
| M00043102A:G12 | ES 208 | 523590    | 2089.J04.gz43_269765 |
| M00043102B:F05 | ES 208 | 453761    | 2089.J05.gz43_269781 |
| M00043102D:C05 | ES 208 | 446728    | 2089.J09.gz43_269845 |
| M00043102D:F11 | ES 208 | 453766    | 2089.J11.gz43_269877 |
| M00043103A:G05 | ES 208 | 449335    | 2089.J12.gz43_269893 |
| M00043104B:C09 | ES 208 | 453494    | 2089.J20.gz43_270021 |
| M00043105A:F02 | ES 208 | 453809    | 2089.K01.gz43_269718 |
| M00043106B:F07 | ES 208 | 450287    | 2089.K11.gz43_269878 |
| M00043106C:D05 | ES 208 | 453572    | 2089.K12.gz43_269894 |
| M00043107A:E07 | ES 208 | 453726    | 2089.K17.gz43_269974 |
| M00043107D:H04 | ES 208 | 450566    | 2089.K21.gz43_270038 |
| M00043108B:A01 | ES 208 | 453132    | 2089.K23.gz43_270070 |
| M00043108B:D12 | ES 208 | 453549    | 2089.L01.gz43_269719 |
| M00043109C:F04 | ES 208 | 454720    | 2089.L06.gz43_269799 |
| M00043131B:A11 | ES 208 | 454134    | 2089.L07.gz43_269815 |
| M00043131B:G10 | ES 208 | 454825    | 2089.L11.gz43_269879 |
| M00043131C:A11 | ES 208 | 451391    | 2089.L13.gz43_269911 |
| M00043131D:B02 | ES 208 | 525719    | 2089.L15.gz43_269943 |
| M00043132C:D02 | ES 208 | 454483    | 2089.L22.gz43_270055 |
| M00043134C:D06 | ES 208 | 454518    | 2089.M09.gz43_269848 |
| M00043135C:E07 | ES 208 | 454550    | 2089.M12.gz43_269896 |
| M00043135D:A11 | ES 208 | 454126    | 2089.M13.gz43_269912 |
| M00043135D:C07 | ES 208 | 526575    | 2089.M14.gz43_269928 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043136A:D03 | ES 208 | 527361    | 2089.M17.gz43_269976 |
| M00043137C:D02 | ES 208 | 452936    | 2089.N04.gz43_269769 |
| M00043137D:D10 | ES 208 | 454438    | 2089.N06.gz43_269801 |
| M00043138A:H03 | ES 208 | 523753    | 2089.N09.gz43_269849 |
| M00043138B:B08 | ES 208 | 407275    | 2089.N10.gz43_269865 |
| M00043138B:F02 | ES 208 | 93125     | 2089.N12.gz43_269897 |
| M00043138B:G11 | ES 208 | 437064    | 2089.N13.gz43_269913 |
| M00043138C:D09 | ES 208 | 449394    | 2089.N15.gz43_269945 |
| M00043139C:A05 | ES 208 | 524622    | 2089.N23.gz43_270073 |
| M00043139D:A06 | ES 208 | 524624    | 2089.O02.gz43_269738 |
| M00043140C:D03 | ES 208 | 527446    | 2089.O04.gz43_269770 |
| M00043140C:H11 | ES 208 | 530919    | 2089.O07.gz43_269818 |
| M00043141C:C12 | ES 208 | 415326    | 2089.O10.gz43_269866 |
| M00043141D:A12 | ES 208 | 454129    | 2089.O13.gz43_269914 |
| M00043144D:H01 | ES 208 | 454050    | 2089.P03.gz43_269755 |
| M00043146C:D10 | ES 208 | 520595    | 2089.P09.gz43_269851 |
| M00043146C:F10 | ES 208 | 453756    | 2089.P10.gz43_269867 |
| M00043146D:H03 | ES 208 | 455941    | 2089.P13.gz43_269915 |
| M00043147D:H03 | ES 208 | 524363    | 2089.P15.gz43_269947 |
| M00043148C:E01 | ES 208 | 453692    | 2089.P17.gz43_269979 |
| M00043149B:A01 | ES 208 | 453202    | 2089.P20.gz43_270027 |
| M00043149D:F02 | ES 208 | 522220    | 2090.A03.gz43_273939 |
| M00043150A:B12 | ES 208 | 518949    | 2090.A04.gz43_273955 |
| M00043151B:D02 | ES 208 | 454460    | 2090.A12.gz43_274083 |
| M00043152A:F10 | ES 208 | 454731    | 2090.A17.gz43_274163 |
| M00043152A:G08 | ES 208 | 456723    | 2090.A18.gz43_274179 |
| M00043152B:H04 | ES 208 | 530939    | 2090.A23.gz43_274259 |
| M00043153B:B09 | ES 208 | 519378    | 2090.B01.gz43_273908 |
| M00043156C:E05 | ES 208 | 528404    | 2090.C03.gz43_273941 |
| M00043158A:F03 | ES 208 | 522869    | 2090.C12.gz43_274085 |
| M00043159A:C01 | ES 208 | 526449    | 2090.C18.gz43_274181 |
| M00043160B:E05 | ES 208 | 521840    | 2090.D02.gz43_273926 |
| M00043162D:E06 | ES 208 | 453730    | 2090.D17.gz43_274166 |
| M00043168C:F03 | ES 208 | 446768    | 2090.F05.gz43_273976 |
| M00043169A:F05 | ES 208 | 453804    | 2090.F09.gz43_274040 |
| M00043169A:H08 | ES 208 | 524100    | 2090.F11.gz43_274072 |
| M00043169C:D10 | ES 208 | 453569    | 2090.F15.gz43_274136 |
| M00043171B:G05 | ES 208 | 523602    | 2090.G12.gz43_274089 |
| M00043171D:G08 | ES 208 | 450784    | 2090.G17.gz43_274169 |
| M00043172A:D08 | ES 208 | 401160    | 2090.G18.gz43_274185 |
| M00043172C:B05 | ES 208 | 234270    | 2090.G23.gz43_274265 |
| M00043172C:G06 | ES 208 | 453946    | 2090.H01.gz43_273914 |
| M00043172D:H03 | ES 208 | 128749    | 2090.H06.gz43_273994 |
| M00043173B:F03 | ES 208 | 453354    | 2090.H11.gz43_274074 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043173C:B05 | ES 208 | 453256    | 2090.H13.gz43_274106 |
| M00043173C:D12 | ES 208 | 520599    | 2090.H15.gz43_274138 |
| M00043174A:G04 | ES 208 | 454810    | 2090.H17.gz43_274170 |
| M00043174B:B06 | ES 208 | 413693    | 2090.H18.gz43_274186 |
| M00043174C:C06 | ES 208 | 526733    | 2090.H20.gz43_274218 |
| M00043176C:A01 | ES 208 | 525315    | 2090.I11.gz43_274075 |
| M00043176C:E12 | ES 208 | 454664    | 2090.I13.gz43_274107 |
|                |        |           |                      |
| M00042592A:H02 | ES 209 | 539142    | 2092.A07.gz43_274486 |
| M00042594C:D02 | ES 209 | 455405    | 2092.A22.gz43_274726 |
| M00042595A:B07 | ES 209 | 447278    | 2092.B01.gz43_274391 |
| M00042599D:E07 | ES 209 | 455460    | 2092.B15.gz43_274615 |
| M00042600D:B08 | ES 209 | 455117    | 2092.B20.gz43_274695 |
| M00042600D:E11 | ES 209 | 452392    | 2092.B21.gz43_274711 |
| M00042637C:E12 | ES 209 | 536171    | 2092.B22.gz43_274727 |
| M00042637D:B12 | ES 209 | 455814    | 2092.B23.gz43_274743 |
| M00042638D:G10 | ES 209 | 455784    | 2092.C02.gz43_274408 |
| M00042639D:H04 | ES 209 | 455880    | 2092.C09.gz43_274520 |
| M00042640C:C10 | ES 209 | 455201    | 2092.C11.gz43_274552 |
| M00042640D:D01 | ES 209 | 455375    | 2092.C12.gz43_274568 |
| M00043178C:C01 | ES 209 | 454324    | 2090.I22.gz43_274251 |
| M00043178C:G06 | ES 209 | 529742    | 2090.I24.gz43_274283 |
| M00043180C:B02 | ES 209 | 452325    | 2090.J08.gz43_274028 |
| M00043181C:C10 | ES 209 | 526539    | 2090.J14.gz43_274124 |
| M00043181C:F06 | ES 209 | 529037    | 2090.J15.gz43_274140 |
| M00043182B:C02 | ES 209 | 454311    | 2090.J18.gz43_274188 |
| M00043183A:C04 | ES 209 | 454363    | 2090.K02.gz43_273933 |
| M00043183C:B08 | ES 209 | 525781    | 2090.K06.gz43_273997 |
| M00043184D:A02 | ES 209 | 447536    | 2090.K17.gz43_274173 |
| M00043184D:G06 | ES 209 | 432159    | 2090.K20.gz43_274221 |
| M00043185B:D02 | ES 209 | 527679    | 2090.L01.gz43_273918 |
| M00043186C:A11 | ES 209 | 524721    | 2090.L07.gz43_274014 |
| M00043186D:A06 | ES 209 | 524706    | 2090.L09.gz43_274046 |
| M00043186D:B09 | ES 209 | 425455    | 2090.L10.gz43_274062 |
| M00043187B:G03 | ES 209 | 530094    | 2090.L12.gz43_274094 |
| M00043187C:E06 | ES 209 | 528369    | 2090.L13.gz43_274110 |
| M00043187D:H04 | ES 209 | 530971    | 2090.L16.gz43_274158 |
| M00043188D:B07 | ES 209 | 525456    | 2090.L17.gz43_274174 |
| M00043189C:F08 | ES 209 | 528981    | 2090.M02.gz43_273935 |
| M00043189D:B11 | ES 209 | 452231    | 2090.M05.gz43_273983 |
| M00043190A:B10 | ES 209 | 454202    | 2090.M07.gz43_274015 |
| M00043191C:G05 | ES 209 | 404081    | 2090.M17.gz43_274175 |
| M00043192B:H06 | ES 209 | 453983    | 2090.M20.gz43_274223 |
| M00043193C:G11 | ES 209 | 523674    | 2090.N04.gz43_273968 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043193C:H09 | ES 209 | 452775    | 2090.N06.gz43_274000 |
| M00043194A:G06 | ES 209 | 453890    | 2090.N11.gz43_274080 |
| M00043194C:A05 | ES 209 | 453177    | 2090.N14.gz43_274128 |
| M00043194D:E10 | ES 209 | 289316    | 2090.N16.gz43_274160 |
| M00043195D:A05 | ES 209 | 518172    | 2090.N20.gz43_274224 |
| M00043197D:H12 | ES 209 | 454007    | 2090.O09.gz43_274049 |
| M00043198A:F01 | ES 209 | 453818    | 2090.O11.gz43_274081 |
| M00043199A:F03 | ES 209 | 452182    | 2090.O14.gz43_274129 |
| M00043201D:D03 | ES 209 | 454463    | 2090.P01.gz43_273922 |
| M00043203B:E07 | ES 209 | 528616    | 2090.P10.gz43_274066 |
| M00043210C:E08 | ES 209 | 454629    | 2090.P22.gz43_274258 |
| M00043417A:H12 | ES 209 | 539804    | 2092.C18.gz43_274664 |
| M00043417B:F12 | ES 209 | 455601    | 2092.C20.gz43_274696 |
| M00043417C:F12 | ES 209 | 447380    | 2092.C21.gz43_274712 |
| M00043418A:A06 | ES 209 | 422223    | 2092.C23.gz43_274744 |
| M00043420C:C02 | ES 209 | 455289    | 2092.D09.gz43_274521 |
| M00043421C:G07 | ES 209 | 449067    | 2092.D12.gz43_274569 |
| M00043422B:C03 | ES 209 | 455162    | 2092.D13.gz43_274585 |
| M00043425C:H11 | ES 209 | 539452    | 2092.E07.gz43_274490 |
| M00043427C:E11 | ES 209 | 544355    | 2092.E10.gz43_274538 |
| M00043428C:A08 | ES 209 | 531461    | 2092.E15.gz43_274618 |
| M00043428D:C10 | ES 209 | 455220    | 2092.E17.gz43_274650 |
| M00043428D:E02 | ES 209 | 536038    | 2092.E18.gz43_274666 |
| M00043430D:C01 | ES 209 | 455254    | 2092.E20.gz43_274698 |
| M00043433A:F02 | ES 209 | 537451    | 2092.F08.gz43_274507 |
| M00043434A:H02 | ES 209 | 452128    | 2092.F10.gz43_274539 |
| M00043434B:D06 | ES 209 | 535129    | 2092.F11.gz43_274555 |
| M00043434B:E04 | ES 209 | 452801    | 2092.F12.gz43_274571 |
| M00043438B:E10 | ES 209 | 404461    | 2092.G04.gz43_274444 |
| M00043438C:D12 | ES 209 | 535436    | 2092.G05.gz43_274460 |
| M00043439C:D05 | ES 209 | 535123    | 2092.G08.gz43_274508 |
| M00043441D:A09 | ES 209 | 455132    | 2092.G17.gz43_274652 |
| M00043442A:D02 | ES 209 | 534519    | 2092.G18.gz43_274668 |
| M00043446B:H01 | ES 209 | 456020    | 2092.H09.gz43_274525 |
| M00043446C:E04 | ES 209 | 455808    | 2092.H11.gz43_274557 |
| M00043446C:E08 | ES 209 | 400258    | 2092.H12.gz43_274573 |
| M00043446C:E10 | ES 209 | 456530    | 2092.H13.gz43_274589 |
| M00043446C:G09 | ES 209 | 547652    | 2092.H14.gz43_274605 |
| M00043447A:F02 | ES 209 | 455572    | 2092.H15.gz43_274621 |
| M00043447C:A06 | ES 209 | 454994    | 2092.H18.gz43_274669 |
| M00043448B:E08 | ES 209 | 455501    | 2092.H22.gz43_274733 |
| M00043448C:D05 | ES 209 | 456742    | 2092.H23.gz43_274749 |
| M00043448C:G07 | ES 209 | 538582    | 2092.H24.gz43_274765 |
| M00043448D:H09 | ES 209 | 451023    | 2092.I04.gz43_274446 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00043449C:H09 | ES 209 | 448946    | 2092.I09.gz43_274526 |
| M00043449D:A06 | ES 209 | 447534    | 2092.I10.gz43_274542 |
| M00043449D:E09 | ES 209 | 215366    | 2092.I11.gz43_274558 |
| M00043450B:C11 | ES 209 | 456249    | 2092.I14.gz43_274606 |
| M00043450B:H05 | ES 209 | 456783    | 2092.I15.gz43_274622 |
| M00043450C:F11 | ES 209 | 454563    | 2092.I17.gz43_274654 |
| M00043451A:B02 | ES 209 | 456103    | 2092.I20.gz43_274702 |
| M00043451B:D08 | ES 209 | 448250    | 2092.I21.gz43_274718 |
| M00043451C:H03 | ES 209 | 447238    | 2092.I24.gz43_274766 |
| M00043452D:D05 | ES 209 | 452830    | 2092.J08.gz43_274511 |
| M00043453B:C06 | ES 209 | 456254    | 2092.J11.gz43_274559 |
| M00043453B:F02 | ES 209 | 546121    | 2092.J12.gz43_274575 |
| M00043453C:A06 | ES 209 | 446866    | 2092.J13.gz43_274591 |
| M00043453D:D02 | ES 209 | 543855    | 2092.J19.gz43_274687 |
| M00043455B:G11 | ES 209 | 546838    | 2092.K04.gz43_274448 |
| M00043455C:G07 | ES 209 | 450914    | 2092.K07.gz43_274496 |
| M00043457C:B12 | ES 209 | 454621    | 2092.K12.gz43_274576 |
| M00043459A:B08 | ES 209 | 541901    | 2092.K17.gz43_274656 |
| M00043460D:C03 | ES 209 | 534054    | 2092.L08.gz43_274513 |
| M00043460D:H01 | ES 209 | 539353    | 2092.L09.gz43_274529 |
| M00043462A:H06 | ES 209 | 455834    | 2092.L14.gz43_274609 |
| M00043462C:E12 | ES 209 | 536225    | 2092.L17.gz43_274657 |
| M00043462D:C09 | ES 209 | 415326    | 2092.L19.gz43_274689 |
| M00043465B:G08 | ES 209 | 162851    | 2092.M08.gz43_274514 |
| M00043468C:D08 | ES 209 | 455379    | 2092.M17.gz43_274658 |
| M00043470C:A01 | ES 209 | 456001    | 2092.N05.gz43_274467 |
| M00043472A:E06 | ES 209 | 536415    | 2092.N11.gz43_274563 |
| M00043473C:B11 | ES 209 | 37186     | 2092.N15.gz43_274627 |
| M00043473D:D11 | ES 209 | 452618    | 2092.N18.gz43_274675 |
| M00043474C:H05 | ES 209 | 455864    | 2092.N20.gz43_274707 |
| M00043475C:G08 | ES 209 | 446866    | 2092.N23.gz43_274755 |
| M00043478B:D01 | ES 209 | 450724    | 2092.O06.gz43_274484 |
| M00043481A:B01 | ES 209 | 532904    | 2092.O14.gz43_274612 |
| M00043481A:G02 | ES 209 | 402534    | 2092.O16.gz43_274644 |
| M00043483B:G01 | ES 209 | 455808    | 2092.O22.gz43_274740 |
| M00043483B:G11 | ES 209 | 455814    | 2092.O23.gz43_274756 |
| M00043484C:E12 | ES 209 | 455492    | 2092.P05.gz43_274469 |
| M00043484D:H08 | ES 209 | 455855    | 2092.P07.gz43_274501 |
| M00043485A:A04 | ES 209 | 452910    | 2092.P08.gz43_274517 |
| M00043485A:C04 | ES 209 | 450658    | 2092.P09.gz43_274533 |
| M00043485B:C09 | ES 209 | 455256    | 2092.P10.gz43_274549 |
| M00043486B:D02 | ES 209 | 543429    | 2092.P13.gz43_274597 |
| M00043486C:D02 | ES 209 | 543431    | 2092.P15.gz43_274629 |
| M00043486C:F07 | ES 209 | 456567    | 2092.P17.gz43_274661 |

Table 13

| CloneID        | ES No  | ClusterID | SequenceName          |
|----------------|--------|-----------|-----------------------|
| M00043489C:H06 | ES 209 | 446873    | 2092.P20.gz43_274709  |
| M00043490A:F03 | ES 209 | 456577    | 2092.P24.gz43_274773  |
| M00063157B:B09 | ES 209 | 464791    | 2102.A16.gz43_275283  |
| M00063165C:F10 | ES 209 | 449206    | 2116.A13.gz43_306321  |
| M00063457A:B12 | ES 209 | 558147    | 2102.B18.gz43_275316  |
| M00063493D:G07 | ES 209 | 644927    | 2102.F08.gz43_275160  |
| M00063496B:F07 | ES 209 | 558900    | 2102.F14.gz43_275256  |
| M00063507B:B08 | ES 209 | 621081    | 2102.G10.gz43_275193  |
| M00063514B:E04 | ES 209 | 498509    | 2102.H02.gz43_275066  |
| M00063546B:F01 | ES 209 | 730600    | 2116.D21.gz43_306452  |
| M00063552B:B06 | ES 209 | 89082     | 2116.E15.gz43_306357  |
| M00063580A:A07 | ES 209 | 649744    | 2116.I06.gz43_306217  |
| M00063592B:E09 | ES 209 | 378453    | 2116.J09.gz43_306266  |
| M00063601D:C05 | ES 209 | 379154    | 2102.I24.gz43_275419  |
| M00063803B:F11 | ES 209 | 402353    | 2103.B13.gz43_275620  |
| M00063861C:F09 | ES 209 | 544229    | 2103.E13.gz43_275623  |
| M00063864A:H10 | ES 209 | 380514    | 2103.E17.gz43_275687  |
| M00063865A:F01 | ES 209 | 427540    | 2103.E21.gz43_275751  |
| M00063866B:H02 | ES 209 | 643609    | 2103.F01.gz43_275432  |
| M00063900B:B04 | ES 209 | 730845    | 2103.H23.gz43_275786  |
| M00063923B:A04 | ES 209 | 402941    | 2103.J21.gz43_275756  |
| M00063927A:B08 | ES 209 | 554395    | 2103.K10.gz43_275581  |
| M00063943B:G12 | ES 209 | 377696    | 2103.M06.gz43_275519  |
| M00063943B:G12 | ES 209 | 377696    | RTA22200255F.f.15.1.P |
| M00063970A:D09 | ES 209 | 642263    | 2116.M13.gz43_306333  |
| M00063980B:A08 | ES 209 | 378447    | 2116.N09.gz43_306270  |
| M00063988A:C02 | ES 209 | 404453    | 2116.O22.gz43_306479  |
| M00063994B:D10 | ES 209 | 535955    | 2116.P08.gz43_306256  |
| M00064064D:D11 | ES 209 | 554032    | 2104.A21.gz43_297640  |
| M00064077B:H02 | ES 209 | 639578    | 2104.C08.gz43_297434  |
| M00064081A:D04 | ES 209 | 52644     | 2104.C19.gz43_297610  |
| M00064082C:D11 | ES 209 | 505275    | 2104.D01.gz43_297323  |
| M00064085B:A12 | ES 209 | 649035    | 2104.D11.gz43_297483  |
| M00064101B:E12 | ES 209 | 376559    | 2104.E08.gz43_297436  |
| M00064104B:A01 | ES 209 | 558382    | 2104.E17.gz43_297580  |
| M00064107C:E03 | ES 209 | 463217    | 2104.E23.gz43_297676  |
| M00064112A:G03 | ES 209 | 646187    | 2104.F12.gz43_297501  |
| M00064131B:A09 | ES 209 | 647586    | 2104.H11.gz43_297487  |
| M00064147B:G08 | ES 209 | 454622    | 2104.I20.gz43_297632  |
| M00064194B:A02 | ES 209 | 11379     | 2104.N01.gz43_297333  |
| M00064195C:B02 | ES 209 | 446397    | 2104.N03.gz43_297365  |
| M00064196D:C10 | ES 209 | 469367    | 2104.N05.gz43_297397  |
| M00064201A:C08 | ES 209 | 727888    | 2104.N13.gz43_297525  |
| M00064220B:E01 | ES 209 | 418763    | 2104.P04.gz43_297383  |

**Table 13**

| CloneID        | ES No  | ClusterID | SequenceName         |
|----------------|--------|-----------|----------------------|
| M00064307C:E12 | ES 209 | 404453    | 2117.D05.gz43_306580 |
| M00064371B:E01 | ES 209 | 728687    | 2117.J15.gz43_306746 |
| M00064383B:B04 | ES 209 | 551960    | 2117.K19.gz43_306811 |
| M00064387A:H05 | ES 209 | 447461    | 2117.L05.gz43_306588 |
| M00064391C:D09 | ES 209 | 471364    | 2117.L18.gz43_306796 |
| M00064394A:C02 | ES 209 | 416886    | 2117.M03.gz43_306557 |
| M00064446D:C08 | ES 209 | 446397    | 2118.A09.gz43_307025 |
| M00064534D:H04 | ES 209 | 730238    | 2118.H24.gz43_307272 |
| M00064592D:F05 | ES 209 | 177443    | 2118.M09.gz43_307037 |
| M00064601C:H06 | ES 209 | 644919    | 2118.N03.gz43_306942 |